THE AMERICAN JOURNAL *of* PSYCHIATRY

VOLUME 115
NUMBER 3
SEPT. 1958

Official Journal of
THE AMERICAN PSYCHIATRIC ASSOCIATION

Clinical excerpts

Use of meprobamate in chronic psychiatric patients

No. 5 of a series

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1. Graffagnino, P. N., Friel, P. B. and Zeller, W. W.: Emotional disorders treated with meprobamate and promazine. Connecticut M. J. 21:1047, Dec. 1957.

SYMPTOMATIC IMPROVEMENT

(hospitalized patients—all types)

by disease

DIAGNOSIS	NO. OF PATIENTS	NO. IMPROVED
SCHIZOPHRENIA		
PARANOID	7	2
NON-PARANOID	45	34
DEPRESSION		
PSYCHOTIC†	37	25
NEUROTIC	16	10
ANXIETY STATE	9	8
CHARACTER DISORDERS	15	13
OTHERS	16	13
TOTALS	145	105

by symptom

SYMPTOM	NO. IMPROVED
SLEEP DISTURBANCES	36
ANXIETY	30
TENSION	31
AGITATION	8
OTHERS	11
TOTAL	116

†Marked ability to symptoms of anxiety, tension and insomnia.

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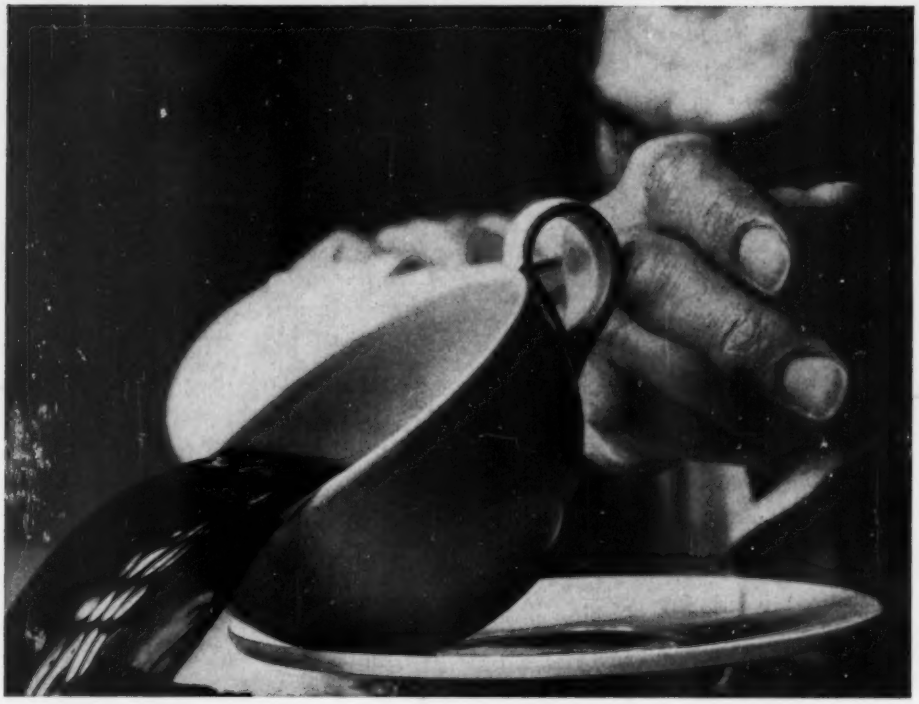

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1. Alexander, L.: Chemotherapy of depression—Use of meprobamate combined with benactyzine (2-diethylaminoethyl benzilate) hydrochloride. J.A.M.A. 166:1019, March 1, 1958. 2. Current personal communications; in the files of Wallace Laboratories.

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PSYCHIATRY IN ASIA AND THE MIDDLE EAST [1]

HENRY P. LAUGHLIN, M.D.[2]

Early in 1957, in conjunction with a brief official mission to the Far East, I had planned a continuing tour around the world to visit medical and psychiatric centers, as a second and more extensive follow-up of a similar world tour, completed two years earlier.[3] Subsequently, at the May meetings in Chicago, Council appointed me APA representative to the Royal Medico-Psychological Association meetings in Oxford in July. I was also "authorized and directed to extend greetings on behalf of the Association to our many colleagues . . ." in 21 of the countries already included in a rather extensive itinerary. More than a score of letters from President Braceland conveying these sentiments were also personally delivered to various government officials, medical school deans and department heads, etc. in the various countries visited.

This article is a summary of approximately half of a report on the resulting trip, prepared for the APA. Council. The first portion concerning Asia and the Middle East has been selected for the Journal because these areas are more remote and likely to be less familiar to most of us. The entire trip covered some 40,000 miles, 90% of it by air. I visited many medical schools, hospitals, Ministries of Health, medical and psychiatric associations and psychiatric colleagues. Fifteen lectures were given and many conferences were held with groups of psychiatrists, other physicians, student groups and government officials. In accord with Dr. Krapf's recommendations and my letter of appointment, I undertook to be an "around-the-world goodwill ambassador in psychiatry."

Language difficulties fortunately often proved to be much less of a handicap than one might expect. For my lectures and conferences (all given in English) interpreters were provided only in Bangkok, Tokyo and Athens. In a number of medical schools at least some of the instruction is given in English. In a few, such as the Royal Faculty of Medicine in Baghdad and the A. U. B. Medical School in Beirut, all of the instruction is in English. I gave lectures in these schools almost as they might be given to American faculty-student groups. Noteworthy was the great attentiveness of the audiences. For example, a group of over 400 faculty members and students from two medical schools in Soeul maintained a completely pin-dropping level of attention for a full hour! This indicates the high level of interest in modern psychiatry as well as a fairly wide-spread and intensive student interest abroad in learning. This is especially so in Korea. President (and M.D.) Il Sun Yun of Soeul National University (with 12,000 students and 500 full time faculty members) commented in strong terms how eagerly his students seek knowledge. The advantages of higher education do not have to be sold to students in Korea!

KOREA

From Washington, my route was west-

1 From a report to the President and Council of the APA, "Psychiatry Around the World."

2 Chairman, Public Information Committee, American Psychiatric Association.

3 Acknowledgment is gratefully made for encouragement, for help with advance arrangements and planning, and for stimulus in the collection of data and preparation of this report from many APA colleagues, particularly Drs. Francis J. Braceland, Eduardo Krapf, Leo H. Bartemeier, Kenneth E. Appel, Clarence B. Farrar, Mottrom P. Torre, Lothar B. Kalinowsky, George S. Stevenson, Daniel Blain, William Malamud, and Messrs. Austin Davies, Charles E. Johnson and Robert L. Robinson; to the many officials of the U. S. Department of State, International Cooperation Administration, U. S. Public Health Service, U. S. Information Service and the U. S. Army at home and abroad, who made or facilitated many arrangements and contributed substantially to the success of the tour; and especially to my many esteemed colleagues from the various countries en route, whose help, hospitality and friendship will provide a lifelong source of pleasant recollections.

ward to Seattle, thence to Anchorage. Here we had a dawn view of miles of Alaskan mountains solidly covered with ice and snow. After a brief stop, the flight proceeded to Tokyo via Shemya Island just south of Attu, the latter a World War II battleground in the westernmost Aleutians.

From Tokyo we flew to Soeul, Korea. Here I was taken to visit the National Veterans Mental Hospital, (meeting there Dr. Oh Zum Kim, a former psychiatric resident at Colorado Psychiatric Hospital), the Capitol R. O. K. Army Hospital, and spoke to the members of the recently formed Korean Neuropsychiatric Association. Some consultive work was also undertaken for the Republic of Korea.

Medicine has suffered greatly during the Korean War. Dr. Joon Mo Chung, the Minister of Health of the Republic of Korea, told me about the disappearance of the president and many other members of the Soeul Medical Society. They were taken north and have never been heard from. Of the present total of 3,600 Korean physicians, over one-third are needed for the military. The Dean of the Soeul National University Medical School, Dr. Choo Wan Myung, is a psychiatrist, and is currently president of the national 40-member Korean Neuropsychiatric Association. He ascribes increased interest in psychiatry to the Korean War and its aftermaths and to contact with U. S. Army psychiatrists. Ten Korean physicians are in psychiatric residency training in the U. S. A.

Senile psychoses, C. N. S. lues, and tabes dorsalis are rare in Korea. Bell's palsy is common: as many as 2-3% of clinic patients. In a recent survey of 617 consecutive psychiatric cases in two university hospitals, 76.8% were classified as schizophrenia, 7.1% as manic-depressive, 4.5% as neuroses and 3.4% as epilepsy. Since 1945, psychiatry previously almost solely descriptive, has become increasingly dynamic.

Stringent currency exchange regulations currently make it next to impossible for Korean psychiatrists to secure professional periodicals or books, unless sent as gifts. Needless to say, these are very much needed and are most gratefully received.

A tour to the military areas, north of the Imjun River, and to the demilitarized zone between the Republic and Communist controlled North Korea offered some views by telescope of Communist military operations and helped to understand the reasons for the constant stress and tensions of present day life in Korea. The mechanism of dissociation appears to provide considerable psychologic protection for many people in Korea. Accordingly, life in Soeul proceeds much as if the constant threat of destruction from a few miles north simply doesn't exist.

JAPAN

In Tokyo, Dr. Taiei Miura, professor of psychiatry at Keio University Medical School, Dr. Tsuneo Imura and Dr. Yushi Uchimura, the latter professors of psychiatry at Nihon University and Tokyo University respectively, together with Dr. Masayoshi Yamaguchi, Chief of the Public Health Bureau of the Japanese Ministry of Health and Welfare, plus several other distinguished Japanese colleagues, alternated as gracious hosts and provided valuable information about the current status of psychiatry in Japan. It is still largely descriptive and is mainly biologically and physiologically oriented. The German influence remains very strong in medicine generally, as well as in psychiatry. However, today there are a dozen or more Japanese physicians in postgraduate psychiatric training in America. The Japanese Association for Psychiatry and Neurology has approximately 1,900 members. Since a number are purely neurologists, this leaves an estimated 1,300 psychiatrists for the country. Among some 400 psychiatrists in greater Tokyo, including those in training, two-thirds are working in hospitals and clinics; less than 100 do private practice. Tokyo is large, 10% of the Japanese population, industrial, spread out and prosperous. It is the most westernized of the eastern cities. By now one has to look closely for lingering and isolated evidences of once extensive war damage. Construction proceeds apace.

Psychiatric terminology offers serious problems, particularly in the translation of technical terms into suitable Japanese characters. Research is very much appreciated, but clinical phases of teaching and

research need to gain more prominence. Psychotherapy needs considerable development. Psychiatric training is well advanced in Japan, however, and there are far more psychiatrists and facilities than in other Asian countries. But, as elsewhere, this seems to point up still more the shortage of psychiatric personnel.

Suicide remains a major problem in Japan, with a current rate of 25 per 100,000, making it number 9 among the leading causes of death. Nearly half (47.4%) are by poison, with drowning and jumping off buildings or in front of trains next in order. Far more work is done with the psychoses in Japan than with the neuroses. Further interest in the latter needs to be developed.

FORMOSA (TAIWAN), FREE CHINA

The riots in which the U. S. Embassy at Tai-pei was wrecked, following the greatly resented court martial acquittal of U. S. Army Sergeant Reynolds for murder of a Chinese National, became news just prior to my scheduled departure from Tokyo. Two-thirds of the plane's passengers abruptly cancelled their flight. However, I landed in Taiwan (Formosa) after a brief stop at Naha, Okinawa, to find the capital city of Tai-pei under the most stringent martial law and considerable tension.

While all this inevitably had some effect on my visit in Taiwan, professional plans remained unchanged, having been outlined for me on an hourly schedule by the Chinese psychiatrists prior to my arrival. The generous hospitality of the Chinese psychiatric community throughout my brief stay could not have been surpassed

The Department of Neurology and Psychiatry of National Taiwan University, which is chaired by Professor Tsung-Yi Lin, with Dr. Hsien Rin as acting chief, has an active program with many interesting facets. The 400 medical students have more instructional time in psychiatry than in some western medical schools. Dean Huoyao Wei has considerable interest in the development of the psychiatric program and was interested in hearing about newer developments in American psychiatry. In the outpatient clinic an average of 40 patients per morning are seen by 5 psychiatrists. Although the incidence is high in the Formosan aborigines, alcoholism is very rare in Chinese—only 7 cases having been seen in the university clinic in the past 10 years.

The Shi-Kou Mental Hospital is presently the only governmental one in Formosa. Established in 1934 with 100 beds, there are now 280, designed for custodial care. Superintendent Dr. Alan Y. T. Hong discussed his major problems as: 1. Need for staff, 2. Need for budget, 3. Need to build up the therapeutic atmosphere for treating the total patient, and 4. Closer relations with the university hospital and medical school.

In Dr. Hong's office was a large alphabetical roster of the 276 patients in residence at Shi-Kou on the day of our visit. Eighty-eight percent were classified schizophrenia, 3% psychogenic reaction, and 2% each manic-depressive, paralysis, and mental deficiency. The staff comprises 5 doctors and 41 nurses—5 registered. The budget provides 24 N. T. Yuan (about 50c on an unofficial rate of exchange) per patient per month for drugs, allowing available the necessary funds for a total of about 30 patients to be carried on tranquilizing drugs. The food allowance is 80 N. T. per patient, per month. In October, 1957, a planned expansion of 250 beds for a veteran's program was to have begun.

Taiwan has been under nearly constant stress and threat since the evacuation of the Chinese mainland. Some of the implications to mental health were discussed with alternate hosts Col. Hsi Kung Liu, chief of psychiatry for the C. A. F., Dr. C. H. Huang, Chinese M. H. A. and N. I. H., Dr. J. Heng Liu, chairman of the Red Cross in China, and with Capt. Robert A. Phillips (M.C.), U. S. N. These environmental stresses do not appear to increase the incidence of the various psychotic reactions, as noticeably as the anxiety reactions and other types of neuroses. There are many cases of neuroses in Taiwan and far too few psychiatrists available for their management and therapy. There is considerable interest in psychiatry generally on the part of medical undergraduates. The orientation of psychiatric teaching on both the undergraduate and graduate levels is

largely dynamic. There is also interest on the part of students and residents in coming to America for resident training.

THE PHILIPPINE REPUBLIC

Leaving Taiwan for Hong Kong our course was diverted to Manila on account of bad weather. I visited again the Philippine General Hospital where some of the best psychiatric facilities in the Philippines are available. The psychiatric department, in common with other medical and surgical departments, generally follows the traditional Eastern practice of having a family member in to help with the nursing.

We also visited the National Mental Hospital where the major change appeared to be a steady increase in the patient census, it having reached 4,104. Dr. J. A. Fernandez is chief of an over-worked and handicapped physician staff of 26. The patient food per day allowance is 65 centavos (32 cents at the official rate of exchange—only about 17 cents unofficially). I photographed a single male patient compound, largely open to a broiling tropical sun, where 1,200 patients were herded together, some completely naked, and provided with the barest of custodial care, looked after by only 4 attendants and 2 nurses. In terms of lack of public support and interest, and the inadequacy of facilities provided, this largest public mental hospital in the Philippines actively competes for the unhappy position of being the worst mental hospital in the world. This dubious distinction is at least in part a joint responsibility in view of the role of the U.S.A. in Phillipine affairs in past decades. It reflects the attitude of many Philippine physicians and also of American medical officials, who have only too often thus far accorded psychiatry a bottom priority in public medical programs. This has been justified by them in the past by the greater need and urgency of other public health programs. The rather recently organized Philippine Mental Health Association is attempting to encourage public interest and support. The return of nearly three dozen Philippine doctors following completion of U. S. residency training, could also have a substantial constructive impact.

SINGAPORE (STRAITS SETTLEMENTS)

Scheduling problems and weather both contributed in cutting short my time in Hong Kong on this trip and long planned visits with psychiatrist Dr. Henry Yap and to the new mental hospital being built in the New Territories west of Kowloon on the mainland.

Our next stop was Singapore, almost at the equator. The University of Malaya has a fine campus and setting. The faculty is rather rapidly qualifying Malayans for teaching posts formerly largely held by Britons. The total student enrollment numbers 1,220. Dr. H. B. Murphy, my host at the university, told me that there are almost no private hospital beds in Singapore, and little in the way of hospital facilities that are not government owned. In addition to the general hospital, there is a 50-bed Adventist Hospital, a small eye hospital, a small childrens' hospital and several small Chinese hospitals. There is almost no private practice of psychiatry and our specialty does not appear to enjoy much prestige in the medical circles of Singapore. This is despite a shortage of psychiatrists. Almost no expert care is available for patients with neuroses, as the limited psychiatric time available is more than fully occupied with the care of the psychoses.

Emotionally sick patients are first admitted to the general hospital and are usually quickly sent on to the Woodbridge Mental Hospital. Woodbridge has 47 wards, nearly all in separate buildings, averaging about 50 patients each, with a total census of 2,142; 872 female and 1,270 male patients. Seven infirmary wards include 4 acute and 1 chronic TB wards and provide medical and surgical facilities. Four new and modern wards have just been completed, one already occupied by 30 patients on active insulin therapy. Some 19 "first class" patients pay 6 Strait's dollars (U. S. $1.86) per day; 71 "second class" patients pay 3 Strait's dollars per day, and the balance are government supported. The staff comprises 3 full time psychiatrists and 7 other medical officers.

The University of Malaya was organized in 1949 upon amalgamation of several existing institutions—its medical college dating

from 1905 is located 4 miles in town from the undergraduate school. As in many European schools, the medical curriculum covers 6 years, the first 2 being essentially premedical. M. B. and B. S. degrees may be granted following successful completion of the 6 years; the M.D. is a higher, postgraduate degree.

In the last 4 medical years there are 283 students enrolled: 172 Chinese, 37 Indian, 36 Ceylonese, 16 Malay and 2 Eurasian. Twenty-six are women. Psychiatry is not prominent in the medical curriculum and could stand an increase in emphasis. The relative position and prestige of psychiatry in the field of medicine in Singapore generally could stand considerable development. Dr. James Browne, Medical Superintendent at Woodbridge, also serves as a part-time lecturer in psychological medicine.

Singapore is an interesting and unique city. It is the only major tropical city in the world which lies almost on the equator. Its climate is usually pleasant enough, although hot, partly because of the almost daily rain. There were *no* flies or mosquitoes! The city is generally quite orderly and clean. Many of its inhabitants still rather clearly recall the Japanese occupation.

REPUBLIC OF INDONESIA

From Singapore our route was south by east to the city of Djakarta, on the eastern end of Java, capitol of Indonesia. The Republic of Indonesia is a heavily populated, young country of 82,000,000 people—proud, jealous of its prerogatives, stringent in its regulations (rigid customs and currency control, aereal photographs prohibited, exit visas required, etc.), ambitious in many areas, including medical development, and struggling with serious economic problems (serious inflation, an unfavorable export-import balance, and an artificially supported currency. The official rate for the rupiah is 11.5 to the U. S. dollar in Djakarta and 43 to the U. S. dollar on the Singapore black market.) The Indonesian people are struggling with attractions toward, and loyalties to, conflicting leftist and rightist political ideologies. Djakarta offered many contrasts to Singapore. Here there was no scarcity of insects, mosquito netting was a necessity, and sometimes inadequate at that! There were many public health and sanitation problems evident in the country.

The medical school of the University of Indonesia is undergoing vigorous development and substantial rebuilding, under the stimulus of several capable and energetic Indonesian professors and with the aid of U. S. I. C. A. grant funds, plus the professional assistance of a field staff from the University of California Medical School headed by Dr. Edwin W. Schultz. Dr. Schultz, Dr. Slamet Iman Santoso, professor of psychiatry, Dean Soedjono, Prof. Sotomo and U. S. (P. H. S.) Dr. Harold Wood, among others, told me of many of the current medical and psychiatric problems in Indonesia.

The major shortages are trained personnel and funds. Inevitably the general factors mentioned earlier, plus other complex social and political problems, play an important part in the medical situation, as in every phase of life in Indonesia. There are far too few physicians, and both economic and social forces result in their concentration in the cities, intensifying the shortage in the provinces. This is counteracted to some extent by the high percentage of government employment of doctors, who are then assigned to particular billets. Expansion of medical teaching and the contract hiring of European physicians are two other mitigating steps that are being taken. The medical course is 6 years, with the first year pre-medical, and the last a year of internship. There are now about 1,000 medical students in the 6-year course at the University of Indonesia, 250 being in the first year. The hope is to keep enrollment in subsequent years within practical limits through academic attrition. This will be difficult in view of the many pressures that can be brought to bear to retain students once they have matriculated.

Many more psychiatrists are needed. There are not nearly enough psychiatric hospital facilities and even those which exist today may not have a single psychiatrist. For example, the mental hospital in Bangli, serving a 2,000,000 population, has 180 beds; needs far more. It is run by

Dr. Vouchoue, an Iranian general physician. For teaching purposes at the University of Indonesia Hospital in Djakarta, the N.P. department has 122 beds, 62 for psychiatry, 60 for neurology. There are plans for greatly expanding the hospital teaching facilities here for psychiatry. This is very much needed.

The people of densely populated Indonesia are far from homogeneous in their customs and mores. This is soon evident from traveling about within the republic. For example, the caste cultural differences between the peoples of the two major islands of Java and Sumatra were stressed by Professor Santoso in discussing problems in psychotherapy. He felt that it was difficult, if not impossible, for himself or for other Javanese psychiatrists to understand Sumatrans and their differing backgrounds sufficiently for effective psychotherapy.

From Java I flew to the island of Bali. This island, world renowned as an idyllic paradise, also has its serious medical problems. Some of these I discussed with Dr. M. Soekarjo, a government physician and Director of Provincial Public Health since 1951, who had run the small mental hospital on Bali for the preceding 11 years.

Bali, with 6,000 square kilometers and a population of 2,000,000, is part of the huge province of Nusa Tenggara which stretches from Java, eastward to Portugese Timor. For the medical needs of the province's 5½ million people, the inspector has 32 doctors—one for each 170,000 people! This is quite a contrast to New Zealand's ratio of 1:400. There are no psychiatrists. On Bali 8 hospitals provide a total of 1,070 beds, 6% of them psychiatric, plus 600 beds for the balance of the province, and 6 leprosaria, with 400 inpatients. Several of the smaller hospitals are under the supervision of a nurse.

An unknown number of psychiatric patients are unhospitalized and untreated. Dr. E. S. Reed, a British specialist in leprosy, had some 2,000 patients, (of an estimated 3,000-4,000) under active treatment, but was due to run out of the specific drug D.D.S. in two weeks for want of funds. Of the needed drug 540 U. S. dollars would buy a year's supply for all his patients. I also visited with Dr. Klaus Bruning, a well trained surgical specialist, originally from East Germany. He was under government contract, as the only surgeon for the 1,200,000 people of the less well known neighboring island of Lombok to the east. He related poignant incidents in his struggle to gain the confidence of the people in surgery—the difficulty of gaining consent for a surgical procedure before a condition was very advanced and chances of success greatly diminished. In these cases should he try to save a life against great odds, knowing that his failure to do so would reinforce existing deep-seated distrust of surgery?

Social changes are in progress in Bali and the culture of these very mild, honest, easy going and kindly people is under increasing pressure, as more contacts develop with the outside world. As examples, obsessive personality traits command a certain premium as the world demand increases for the beautiful wood carving, painting and jewelry for which Bali is renowned(1). A recent government order requires the women to keep their breasts covered and the majority now comply, with most of the exceptions, as one recent U. S. physician-visitor from Djakarta commented wryly, being "the ones about which one wouldn't care anyway!" Although a day of heavy manual labor commands only a pittance, more Balinese, including the women, become laborers. The desire for various outside goods helps add to their needs for money, and increases economic pressures.

THAILAND

Bangkok, the capital city with 10% of the country's 20,000,000 population, is also the medical center of Thailand, containing the country's two medical schools and major hospitals. In adjacent Dhonburi is the 1,500-bed Somdejchaophya Mental Hospital, best in Southeast Asia. The School of Medicine, Siriraj Hospital, has 1,000 students in its 6-year program and that at Chularonkoru Hospital 600. Residency training programs are available in the various specialties and some graduates have had training in the United States.

The Thai Psychiatric Association has 68 members. The president, Dr. Phon Sangsing Kao, is also head of the Dhonburi

Hospital. At Dhonburi the general atmosphere is therapeutic, the patients have few restrictions and the staff of 15 psychiatrists with Director Dr. Arun B. Sawana are interested in psychotherapy, research, and teaching and do an excellent job. Discussing psychiatric philology, Dr. Arun noted the adequacy of the Thai language in expressing emotional feelings, citing as an example the Thai word *moichai* as expressing the complex emotional state of combined sorrow plus anger.

TABLE 1

MENTAL HOSPITALS IN THAILAND

Hospital	*Beds*	*Psychiatric Staff*
Dhonburi (Somdejchaophya) Bangkok	1,500	15
Nonburi	800	4
Ubol	700	3
Chiangmai	250	3
Surat	700	3

INDIA

The problems of psychiatry in the subcontinent of India, with its 350,000,000 people, are simply staggering. Less than 20 physicians hold the D. P. M. degree from London, still widely considered as qualifying. An official statement compiled by Dr. T. R. Tewari, Directorate General of Health Services, New Delhi, in August 1957, lists 32 mental hospitals with a total of 11,512 beds. Uncounted thousands of psychiatric patients are unhospitalized, wander about, or are kept in the villages by their families.

Calcutta, with its 6-7 million people, is one of the largest and most recently founded major cities in the world. Dean Dem Subodh Mitra of the Faculty of Medicine, University of Calcutta, discussed with me some of the major problems in organizing a graduate training program in psychiatry, which they are about to do. It is to be under Dr. N. De, present head of the department of neurology. They cited the need for trained personnel as tremendous. About a dozen psychiatrists of varied training and experience practice in Calcutta, 3 of whom have their D. P. M. There is no large mental hospital in or near the city—only one small observation hospital with some 100 beds. There are two mental hospitals at Ranchi, 300 miles distant, largely custodial, one with 1,400 patients and one with 300.

The capital city of Delhi, together with other major cities, also lack adequate mental hospital facilities. Here Dr. John Hume discussed public health in India, as had Dr. Stella Warner on my earlier visit. As of August 1957 India has 42 medical schools with a student enrolment of 3,788. Little psychiatry is currently taught in the medical schools of India. Some post-graduate training has begun in Bangalore. Bombay is also trying to begin. About a dozen Indian physicians are in psychiatric residency programs in the U. S. India is indeed a land of great contrasts. There are many modern aspects, particularly in her major cities, as well as much of the primitive and underdeveloped in the balance of the country.

In two trips across the country with brief visits in a number of cities I have found the relative lag in medical progress in India generally regrettable. As to the relative progress in psychiatry specifically, compared to other Asian countries, some of which are even recently war torn, or regarded as less developed, the situation is indeed deplorable.

IRAN

After additional brief visits to Nagpur and Agra in India, Indian Airways took us to Karachi, the capital of Pakistan. Psychiatry has a long and difficult road in Pakistan also. After a brief visit, we flew on to Zahaden near the juncture of Pakistan, Afghanistan and Iran. Our comfort was not increased by an old, slow plane, crowded with Mecca-bound pilgrims, very bumpy weather, and a sad failure of the ventilating system. Teheran, the capital city of Iran, with its 1½ million inhabitants, and its proverbial Persian hospitality was most welcome.

Medicine in Iran has had strong ties with Europe, especially France, and many physicians speak French as their second language. A fair number of specialists in various fields have had their P. G. training there. There are, however, increasing interests and ties to American medicine. A number of leading men have visited this

country and there is an increasing trend toward training here, including several current trainees in psychiatric residencies.

I visited several of the small, privately owned mental hospitals in and around Teheran. This type of institution, generally with 40-80 patients, is to be found in most of the middle eastern countries and accounts for much of the psychiatric work done. Facilities are often very good. The fees vary—and some are substantial. One private patient's bill in Teheran was running, for example, 56,000 rials monthly (about $700.00), inclusive of all care and services.

Dr. A. H. Radji, Minister of Health, recounted his continuing efforts, which have met with some success (62 doctors in the two months of May and June, 1957) to get physicians to locate in the provinces. Of 3,300 doctors in Iran, 2,250 are located in the capital city. Physicians in Iran are favored by being *the only group who are assessed no personal income tax.* The two greatest current health needs, in addition to physician distribution, are care for mental patients and an adequate medical program for leprosy. Dr. Radji planned, with my encouragement, the constructive innovation of a Division of Mental Health in his Ministry. As the final draft of this report is reviewed, I have learned that this Division has been created and is currently functioning.

State mental care, and the Teheran Mental Hospital in particular, certainly need more budget, better facilities and more personnel. At the latter institution, Dr. Ahmad Nezam, chief psychiatrist, had a census of 1,255 on June 13, 1957, which had been steadily increasing. Patients were crowded together. The staff comprised 4 psychiatrists and 2 other medical specialists.

At adjoining Rousbeh Hospital of the Faculty of Medicine, conditions are improved. Here there were 80 psychiatric patients, while at the modern 1,600-bed Pahlavi Hospital there were 60 more N.P. beds. The Faculty of Medicine of the University of Teheran has access to these beds for teaching. This 6-year school with 200 students per class is the largest in Iran. Other medical schools at Tabriz, Shiraz, Mashed, and Isfahan aid in the supply of doctors for the 18,000,000 people of Iran.

IRAQ

It is a short pleasant flight from Teheran to Baghdad on the historic Tigris River. This is the capital and principal city of Iraq, a kingdom whose 5 million people are proud and friendly. Here my host was Dr. John A. Lewis, American P. H. S. psychiatrist and head of the medical division of the U. S. O. M. to Iraq.

The Minister of Health, Dr. Abdul Amir Allawi, Dean Siab Shawkat of the Royal Faculty of Medicine, and Dr. Ali Kamal, head of the psychiatric department, among others, provided interesting information about medicine and psychiatry in Iraq. Most of the 15 psychiatrists in the country work full or part time at the university, or at one of the two mental hospital facilities, devoting other time to private practice.

Instruction at the Royal Faculty of Medicine (the only medical school in Iraq) is all in English for the 703 students currently enrolled in its 6-year program. Of the two psychiatric facilities, one provides beds for 800, mostly chronic mental patients at the Royal Hospital. The other, newer facility at Shammaya, 30 kilos from Baghdad, which was opened in December, 1953, has a census of 350, with many acute cases. Dr. M. K. Shabander, the director, described the program for adding 1,000 new beds, which was about to begin. He had a staff of 6 psychiatrists. I saw interesting cases of depression, paranoid schizophrenia and manic states here.

Medicine in general and psychiatry in particular need further governmental and public support in Iraq. The provision of post graduate opportunities in America for selected residents would be an excellent idea. The easy going nature and friendliness of many Iraqis, plus a startling lack of suspiciousness on the part of police and army sentries encountered, were an interesting characteristic of the people. Side trips to the site of ancient Babylon on the Euphrates and to Ctesiphon across the Diyala River were indeed noteworthy.

LEBANON

Lebanon is a small (area 3,900 square

miles, population 1½ million), beautiful republic, with the capital city of Beirut accounting for about one-third of the population. Its people are about half Christian and half Moslem. French is their second language, and most of the doctors are also quite at home with English.

There are several medical facilities of note. Among these are the two medical schools in Beirut, the smaller of which is primarily French in faculty, language and sponsorship. The other medical school is a major branch of the A. U. B. (American University of Beirut) which has had students from, and has furnished outstanding graduates to many countries. Dr. J. J. McDonald, the dean, has an excellent professional staff, including Associate Professors Fuad Sabra in neurology and A. S. Manugian in psychiatry. The latter also heads the excellent Lebanon Hospital for Mental and Nervous Diseases at suburban Asfuriyeh.

It was pleasant to visit again this well situated hospital overlooking Beirut; the patient census of which was now 423, with a staff of 3 psychiatrists, plus a consultant staff and 2 interns. The policy is aimed toward making it completely open door (now 70%). Currently over 90% of the new admissions are made directly to an open ward. More staff is needed and at least one or two of half a dozen Lebanese physicians in training in the U. S. are expected to return here. Excursions to Byblos, site of neolithis, Phoenician, Greek, Roman and Crusader settlements, and the site of origin of the alphabet; and east toward Syria to Baalbek, site of the Roman city of Heliopolis, and currently the scene of fighting, added to the professional aspects of the visit.

EGYPT

The life of Egypt's 20 million people centers around the Nile River and the narrow north-south, fertile, green ribbon which the river makes possible; with a concentration of population around the Mediterranean end. Here are located the two largest cities: Cairo with 2½ million people and Alexandria with one million. Here also is the center of medicine in Egypt. There are 3 medical schools: the Medical Faculty of Cairo University, which has both psychiatric and neurologic sections; Ein-Shams (Cairo) has a neuropsychiatric section, and Alexandria has a neurologic section. Each has a neurosurgical unit. In addition to undergraduate instruction in psychiatry, the Cairo and Ein-Shams Faculties give a one-year graduate course in psychological medicine and neurology (D.P.M. and N.). It is now proposed to make this a 2-year course.

The Behman Hospital is an example of the good private facilities available for mental patients in the middle east. Here in Helwan, southeast of Cairo, we observed 40 patients being entertained by an Egyptian four-piece orchestra, prior to a play about to be given by patient personnel. Dr. Ben Behman discussed his policies

TABLE 2

PSYCHIATRIC HOSPITAL FACILITIES IN EGYPT [4]

	Hospital	*Auspices*	*Census*	*Medical Staff*
1.	Abbassia, Cairo	State	3,500: 2,500 female	29: 10 qualified, and 19 preparing for D.P.M. and N.
			1,000 male	
2.	Khanke (15 miles north of Cairo)	State	3,000: all male	26: 6 qualified, and 20 preparing for D.P.M. and N.
3.	Behman, at Helwan, south of Cairo	Private	90	6
4.	Zeitoun	Private	55	3
5.	Maadi (2)	Private	approximately 35 each	
6.				

[4] Acknowledgment is made to Dr. Ahmad Wagdi, Sub-Director General for the Department of Mental Health in the Ministry of Public Health, and Director of the State Hospital at Abbassia for help in compiling these data.

of a multi-disciplined treatment approach, open wards and limiting census. Credit for cleanliness, order and therapeutic atmosphere is shared with the 10 staff sisters of the Negrizia (Italian) order.

There are 9 outpatient clinics in Egypt. Of 6 for general psychiatry attached to general hospitals, 5 are in Cairo and one is attached to the general hospital of Tanta, capital of the delta. One for children operates with the school health services, and one for epilepsy is run by the neurological department of the Cairo Medical Faculty. There is a social service office, with a part time psychiatric consultant attached to the Court for Juvenile Delinquents in Cairo.

Language was not a problem. Nearly all the professional people met had a fluent command of English, as did many of the store personnel, military officers, train conductors, etc. The psychiatrists are familiar with American textbooks and some have trained or traveled abroad, especially in England and the United States. Several are in training programs in America.

There are about 55 psychiatrists in Egypt and the number is increasing. Thirty are members of the recently founded (1955) Egyptian Society for Psychiatry, Neurology, and Neurosurgery, which is a branch of the Egyptian Medical Association. In 1948 the Egyptian Association for Mental Health was organized. With a current membership of about 100 it is a founding member of the World Federation for Mental Health.

Downtown Cairo with its modern stores and buildings is not too different from some European and American cities. Other sections of Cairo and of Egypt are very different. The *souks* (shopping areas), the Citadel and the mosques and minarets of Cairo; the *fellaheen* (peasants), intense cultivation, irrigation, camels and buffalo along the Nile, and the vast areas of desert remind one, however, that this is present-day Egypt. The Sphinx and the three major pyramids at nearby Giza, together with another dozen lesser and less well known pyramids south along the Nile's western bank, also remind one of the towering past, and its 6,000 years of civilization.

A 1,000 mile round trip by train takes one along the Nile through the agricultural heart of the country to southern Egypt, to the impressive ruins of the ancient temples of Luxor and Karnak and the Valley of the Kings. Here King Tut's mummy, still enclosed in its original golden casing, is almost alone among ancient objects in remaining undisturbed after thousands of years. Subject to certain governmental regulations, it is still possible to obtain items from many centuries past. Upon leaving, a psychiatrist friend who is a collector gave me two beautiful small bronze figurines dating from the middle Kingdom, circa 1500 B. C.

In Conclusion

Perhaps the outstanding single impression has been the increasingly important contribution which American medicine and psychiatry are making in many countries. This role will certainly tend to increase, if for no other reason than because of the large proportion of foreign graduates currently in our residency training programs(2). In few of the countries visited could my welcome have been more cordial or greater interest displayed in what I could report to our overseas colleagues about American psychiatry.

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BRAIN MECHANISMS AND PSYCHOTHERAPY

BERNICE T. EIDUSON [1]

One of the most interesting aspects of the sociology of knowledge is the contagion with which a resurgence in one intellectual field can be carried to another. Today's advances in brain physiology show the exciting promise of a renaissance in understanding the workings of man's mind. It is hard to know at this point what the new conceptualizations of the functioning of the brain will mean to the psychologist who tries to develop generalizations about man's behavior which will permit prediction and to the psychotherapist who deals with behavior when it has been singled out because of some malfunctioning. Yet certain directions are already suggested and not only present fresh ways of looking at the clinical process, but also point out how clinical experience can contribute to establishing the significance of physiological findings.

To review in any detail even the most recent physiological literature is beyond the scope of this paper; a number of references considered together do present it adequately however(4, 19, 20). What is apparent in the work, considered as a whole, is that some of the tentative notions about the brain and total functioning are even more apparent as the investigatory work proceeds along the lines of minute scrutiny which techniques now permit. For some time it has been known that the brain is not a passive agent. Lashley described its activity and its constancy, its rhythmicity and automaticity which maintains its activity regardless of external stimuli (13, 16). There are many examples that these characteristics are found in brain parts isolated from the whole, and in processes even at cellular levels. What is significant for the psychologist is the way these rhythmic or autonomous characteristics seem to be put in the service of regulating input. Bartley and Bishop have demonstrated, for example, that impulses initiated in the optic nerve of the rabbit found access to the cortex in the form of evoked responses only at certain intervals of about 5 per second which corresponded to the spontaneous rhythm of the alpha activity cycle(1). Lindsley has given evidence for a basic rhythmic pattern which is associated with the excitatory cycle in a particular aggregate of cells(18). Investigation of neurohumeral transmitter mechanisms in the brain has pointed to the spontaneous activity at synaptic points which makes for threshold differences at different synapses and seems to play into such phenomena as duration of aftereffects. Gerard has excellently described the notions which are beginning to stem from work on synaptic mechanisms and which are exciting physiologists: the differentials in ease of setting up certain reverberatory pathways, the differentials with which some neurons change in response to chemicals, the ways synaptic junctions limit what is transmitted(8).

With the discovery of the reticular activating and the diencephalic systems as diffuse sensory projection systems, supplementing and yet being quite different in character from the regular sensory pathways, experimental work has shifted focus from cortical to subcortical areas. Since behavior patterns of sleep-arousal were correlated with lesions in certain mesencephalic and diencephalic structures and with EEG patterns, it was felt that these systems played an important role in the regulation of cortical activity. Most recently, research has shown that some of the functions previously thought to be the work of the cortex were, in fact, subcortical, as finding the reticular system likely to be the center for integration. The work of the Scheibels is in point, for they have been able to isolate single neurons with such extensive dendritic formation that they can reach directly into the cortex and thus may not necessitate associational neurons to effect a stimulus-response transaction(7, 30). Such a postulation may explain the repeated work showing a lack of relationship between amount or locale of extirpa-

[1] The Hacker Foundation for Psychiatric Research and Education, Beverly Hills, Cal.

tion of cortex and decrement in intellectual functioning.

Of great interest too in postulating the cortex-subcortex relationship has been the work of the Killams who have been able to show that the reticular activating system acts as a filtering system for afferent impulses en route to cortex(14). Their work as well as that of others has employed the use of tranquillers by which they have been able to demonstrate differential responses in various parts of the system(24). This hypothesis has been similarly proposed by investigators on the basis of anatomical relationships(30). The interaction of cortical-subcortical mechanisms has been so stimulating because it has been assumed that the very interactional process itself may underlie the behavioral phenomena as emotion, attention, motivation. The very alteration of states of consciousness through subcortical electrical stimulation on human as well as subhuman levels has been felt as potentially holding promise of explanation of different states of ego awareness, even proceeding to delusion and hallucination. The analysis of the effects of brain stimulation are still preliminary, and largely proceed from notions of learning phenomena derived from more classical techniques and experiments. Yet, since the effects of intra-cranial self-stimulation were first discovered by Olds and Milner, speculation about "reward" and "punishment" centers in the brain, or "attractive" and "unattractive" cerebral areas has given a new dimension to what were thought to be brain properties(3, 23, 26). In studying the nature of positive reinforcement of basic drives in various parts of the brain stem, chemicals have been used to map brain areas(25). Findings on rats have been extended to other species, variations in learning schedules have been tried and shown to correspond with general learning patterns of regular drives, and interaction between the reinforcing properties of self-stimulation and other reinforcers has been demonstrated(2, 26, 32).

The importance of this work rests not only in the factual data which elucidate the mechanics of brain function, but also in the enhanced concept of the brain as an active, orienting, directing organ made up of components which are themselves active, orienting, directing. The analogy of the brain as a machine focussed attention on the way the brain regulated and systematized knowledge of the environment, stored this knowledge, and learned the strategies which made behavior appear smooth and regular. Yet, this kind of analogy does not appear now to be appropriate. For the brain, unlike a machine into which any mechanism can be set, appears to have mechanisms of its own, which serve not only to effect transmission between organism and environment, but even more directly, to contribute substantially to how, when and what will effect the organism.

This is not to be construed as in any way a reification of mind or brain, or any declaration of complete independence for organism apart from environment. It is rather a recognition of certain patternings or autonomous qualities which by the nature of their structure and mechanisms perhaps predetermine to a large extent the stimuli which are appropriate to them. Woodger has recommended the phrase "environmentally insensitive", as contrasted to "environmentally sensitive", to describe in biology the inborn or characteristic qualities of man(37). I wonder if the new physiological data do not demand similar refinement, for speaking of organism—sensitive or —insensitive in regard to stimulus data might capture the feeling that the organism determines what of the environment comes in as input.

This conceptualization of the brain would certainly necessitate changes in some of our ideas about the formative process of personality. Freud, for example, did posit biological drives as the forces which were ultimately developed and conditioned by the contact with the outer world. Yet the very ambiguity of the words he used, "instincts" and "forces," showed that he conceived of them as undirected, seething, powerful. The initial state of the child is described as the passive experiencing of stimuli from the outside world, and only the construction of the perception apparatus permits a change to activity(6). Only as the ego begins to take stock of the environment and perceive it through the processes of incorporation does the indi-

vidual learn that which in turn are his abilities or modes of thinking or reacting and enable him to handle the world with which he is confronted. In other words, what the individual projects as his personality has first to become his through the process of introjection. This view of drives and their acculturation through learning was not too differently formulated in some of the other psychological schools at the beginning of this century, and only recently, as Hebb has pointed out, have the students of motivation begun to think about drive in a way which is not out of keeping with current physiological data (12).

There is no question that throughout its development, psychology has been plagued with the question of what facets of personality were innate, inborn, and therefore thought to be structural; and what aspects were experientially determined. The assumption was made that the innate were to all intents and purposes immutable, while the experiential were, within limits, alterable. Much of the research in child development has been devoted to trying to elucidate what these limits are. Certainly this has been the case in regard to intelligence. There was never a time when intellectual capacity was not regarded as related in such a way to physiological endowment that the boundaries of capacity were determined for once and perhaps for all. After many persons attempted unsuccessfully to isolate the variables or intellectual factors, recently Halstead developed a factorial system by proceeding from biological constructs(11). It is hard to know if even his is going to be satisfactory, for his intellectual factors are all related to the cerebral cortex, and much of the recent work has suggested that even the integrating mechanisms may be sub-cortical. Yet what is of significance is that the biological equipment has always been felt to set the limits, and in so doing, circumscribe how experience makes its mark. The many studies of changes in intellectual capacity in response to severe manipulation attest to the invariance of the boundaries of the intellect. The nature-nurture controversy which has waxed and waned in psychology over many years, has been enlivened again with the data which genetics, biology, ethology now bring to bear. More than anything else do all of these highlight the stability of behavior mechanisms which do not depend on learning or social acquisition; and instead seem to be effected by the general course of development of adaptation for survival(29).

While acepting certain invariances in man, clinical workers have at the same time been very resistive to acceptance of this idea. One needs only to look at psychoanalysis and the goals it sets to show this. The aim is for reconstruction of personality, which means the instituting of permanently different ways of coping with stresses, once older inhibited ways are resolved. Whether an individual's psychological armamentarium is modifiable, and how modifiable it is, is dependent primarily on the method of treatment employed and the conditions under which change is undertaken, as well as the kinds of stresses which set the patterns in the first place. Only recently have some of the psychoanalytic writers spoken of certain constitutionally-endowed aspects of ego strength; in some schizophrenics, defects in rudimentary equipment from the beginning are postulated in order to explain their innate incapacity to handle or react appropriately to perceptual and affective experiences(10). And thus far it is the rare psychoanalyst who, impressed with years of experience, begins to question the reversibility of personality patterns(9). I have chosen psychoanalytic theory as the example of the attitude toward structure, because it is one which even employs the notion of structure in the diagnostic term "character structure," to denote the aspects of personality formation which are so rigid and fixed that they have been described as the individual's "character armor"; yet even in the face of this, psychotherapists generally have remained undaunted in their expectations for change. When psychological tests have been called upon to give confirmatory evidence for changes in personality structure which seem warranted by clinical and subjective reports after long and intensive treatment, minimal indications of deep-seated modifications have been forthcoming(31). The explanation for this has been sought in sensitivity lags in

text instruments or in neglects in treatment —scarcely ever in the nature of personality structure itself. Yet this would certainly point in the direction of a fixedness which our most radical treatment methods cannot do more than superficially shake.

Fixedness within the individual, however, has never implied identity among individuals. Emphasis on the establishment of parameters of individual variance has in both physiology and psychology alerted investigators to the generalities that define human functioning and to the differences among humans simultaneously. Grey Walter finds on the EEG'S on normal and patient populations, for example, when comparing brain-wave patterns of large groups, that there is a great variation in patterning from individual to individual, but that each person shows a definite constancy of patterning(35). Grey Walter has even noted that persons with specific brain patterns become allied with those who have similar patterns(34). An example from another field : gamma amino butyric acid, a substance found in the brain, and thought to be related to neurohumeral transmission, seems to show no consistency from individual to individual as to the amount or place of its concentration, although within each individual it shows regularity(28). The concept of "biochemical individuality" has emerged from Williams' attempt to measure and account for a number of biochemical variables which seem to be consistent within an individual, although showing considerable range among individuals(36). The range of "normal" parameters seems to be extensive enough to permit Williams to suggest the correlation of variance with susceptibility to organic and even mental disease. This picture has been suggested so regularly on the biochemical level that it has led S. Eiduson *et al* to postulate how the individual will respond when confronted with new learning : there is a period of time prior to birth and shortly after, during which certain biochemical processes are not set with respect to rate and specificity of function. Once a particular time after birth is reached the processes of function become set, with the ratio of one substrate or product to another being fixed within limits. Although this "set" may be modified to some extent by subsequent experience, any new stressful situation will be initially responded to by the organism's reverting to the original biochemical pattern established (5).

Experimental psychological work in perceptual style which characterizes how an individual selects, modifies, and distorts perception has shown such consistency under various conditions and in tasks involving a number of sensory modalities that "cognitive" or "perceptual style" has been assumed to be as a personality constant(15). Psychological studies which have been carried on with the administration of tranquilizers has similarly pointed up the qualitative and quantitative differences in the ideational and imaginal productions among individuals, and yet the response of the single individual is predictable in the light of other measurable aspects of his psychological behavior(21).

It is easy to say that as yet these findings are not sufficiently conclusive to hold immediacy for clinical psychiatry. In terms of single findings this is certainly the case. However, I think something quite tangible can be gained from the study of the directions which the research is suggesting. Underlying all psychotherapy is the principle that the more we understand a person, the greater the possibility of helping him. We know now and have known a great deal about what motivates and moves individuals, but the limitations in this have been most apparent whenever we have tried to effect and measure change. To some extent this reflects our confusion over what is change in personality—and what identifies deep-seated and permanent changes. If a patient's symptoms diminish in intensity, have we effected basic change, or even if they disappear altogether, or if he is much less anxious and tense, or if he sees his parents in new and seemingly different ways? Our measuring sticks—observation of behavior over a long period, or subjective report—reflect the difficulty of knowing what significant change is. Yet it is exactly on this question of modifiability or potential variation and the ways of effecting this that the new research can bear.

It looks now as if there are some stimuli which are more appropriate for reception by the organism than others because of the nature of the structure of the organism itself. It seems too as if there are many conditions existing within the nervous system which demand fulfillment before input can become meaningful as data. As these become more explicit, efforts to effect change can be directed and varied accordingly. What this would mean for the clinician or psychotherapist who must essentially disturb malfunctioning in order to bring about better functioning is that he would be able to direct his therapeutic efforts in line with what would elicit the most ready response from the patient. The psychotherapist would essentially be in a position to adjust input in the form of his therapeutic communications so that they would be appropriate to the nervous system demands of each individual. As example, it is quite conceivable that in some persons a high level of activity must be reached for certain synaptic thresholds to be traversed; it has been suggested that such a factor may even distinguish creative from noncreative persons. Immediately one wonders whether the amount or quality of the activity or passivity of the therapist's communications might not be accordingly modulated to be most effective. Or if we know how flexible one's rate of transmission of electrical impulses along sensory pathways, perhaps we would have one significant variable for determination of potential of flexibility for therapy. All clinicians have been impressed with the difference in the response of patients to similar psychotherapeutic techniques, even when the patients seem strikingly similar in personality pictures and symptoms. Repeatedly the variety of successes which therapists have reported using diverse techniques has been baffling; or the propensity of some therapists for handling certain patients regularly successfully, or the regular failures with certain other types. Perhaps we have been observing here a spontaneous adaptation of therapeutic communication to nervous system demands of the patient, without our recognizing it for what it was. What I am implying is that the more we know about the organism's structure the more we may be able to define this now nebulous "accessibility to treatment."

The knotty problem of how to engage a patient might well be facilitated if we were able to understand how stimuli effectively register as meaningful input. At present this sounds like a long shot, but as the physiological data pour out there is no question that we shall be learning how an individual operates, what gets through to him, how it gets through, what happens when there is an overflow of information, or, on the other hand, an underflow. The recent experiments on sensory deprivation give a striking demonstration of just how much distortion and disturbance are derived from just such an insufficiency over a sustained period of time(33). And it has been hypothesized that this is related in some way to the level of chronic activity demanded by the central nervous system.

The withdrawal or catatonia that makes such an impenetrable wall for psychotherapy must have physiological correlates, as does all other behavior. Perhaps consideration of these will permit a first entrance which will lead to the understanding of the why of this severe malfunctioning. As we are able to give specific definition to the conditions and characteristics of consciousness and unconsciousness, we shall be able to know how the levels of awareness are related to each other and how we must attempt communications to bring about the desired change.

Probably the most exciting aspect of the physiological research for psychiatry is that we can plainly foresee the way in which the two approaches will converge to answer the same questions. Though some of the current notions underlying psychotherapy will have to be rejected for new ones, I would doubt that as much discarding will have to take place as we might think would be necessary. I think this because, although psychotherapy has proceeded to its present status more from subjective, intuitive and observational findings than from those resting on empirical validation, the correspondence of evidence on personality formation and motivation from diverse sources has been abundant. Clinical and developmental methods have been of sufficient rigor to have demanded consistency in behavioral

phenomena and rejection of those notions which did not meet reliability conditions. This body of molar data is sizeable and the likelihood that it will need extensive revision is small. Where revision will be needed is in regard to the now postulated causal and correlative relationships.

Behavioral and experimental data contain a reservoir of clues for the physiologist. In their practice, clinicians have been alert to the mechanics of behavioral sequence and to the intimate description of actual functioning. If the clinical response patterns were now looked at and reevaluated with attention to the phenomena which are regularly elicited, function in operation could be demonstrated. The behavior patterns that can be readily reproduced in the laboratory situation of course do in some measure reflect the non-laboratory behavior; this has enabled psychological experimentation to proceed to its present level of development. Human behavior in its complexity is more difficult to reproduce experimentally; and yet the regularity and consistency of its occurrence permits the clinician to reliably predict its occurrence. The lack of systematization of these clinical data has made this wealth of behavior unavailable to date; but a thorough and systematic description would contribute a body of research data which in itself may suggest the functioning of central nervous system mechanics.

A discussion by Lief of the selection of phobic objects and the forces maintaining the phobia is a case in point(17). Presenting clinical data, he shows that for understanding how sensory cues associated in time contiguity with the critical attack of fear, become selected as phobic objects, reinforcement theory of learning which stresses repetition of fear-provoking experiences provides a suitable answer. However, this is an oversimplification of fear phenomena, for in many cases the original and unconscious source of the critical attack of fear continues to operate, and only when its symbolic connections are exposed, does the phobia disappear. This suggests that a memory is maintained by fear and anxiety which potentiates the repression, and makes patients resistant to uncover the mechanism at work. Interestingly enough, the memory, once recalled, shows such a freshness that it seems to have lain as an isolated neural circuit, out of effective communication with the rest of the physiological machinery.

Clinical psychiatry is rich in such data. Not only could the details of behavioral response be described in the complexity with which we know it in the human to give proper scope and posture to the behavioral data obtainable in the animal laboratory, but also the precursors of responses, their precipitating events and their critical conditions could be outlined, and their sequelae. An intensive description of function could identify explicitly the vagaries of memory, associations, feelings, responses, and would provide a large body of clinical data, accumulated by experienced observers, against which to evaluate the neurophysiological findings. The data could also conceivably offer important clues to the physiologist, and help anticipate and direct the advances which are now unfolding.

This is a worthy research for clinical psychiatry and an exciting one. For clinical psychiatry such research would have immediacy and impact. It is well recognized that psychotherapy unfortunately proceeds not only on a loosely conceptualized theoretical base but also within a vaguely formulated definition of practice. Little inroad has been made in patterning the observable characteristics of behavior in any way by which phenomena can be identified and categorized. The substance and dimension given our commonly used conceptual notions through systematically observed definition would mean a sizeable attack on some of the enormous problems which have made research in psychiatry seem so formidable. It is hard to imagine that the same excitement which is so pronounced among neurophysiologists today would not sweep over and trigger off the kind of advances in psychiatry which have been long anticipated.

Summary

The vigorous experimental work in neurophysiology and neurobiochemistry directs attention toward the structural mechanisms of the central nervous system and par-

ticularly to the ways and extent to which these built-in mechanisms order response. The work which has emerged to date has immediate pertinence for some of the problems which have always been crucial ones in personality theory: problems related to how personality is formed, what personality change is and how it is brought about, the nature and significance of individual differences. As the laws of input-organism exchange are extended by subsequent research, and as we begin to think of the therapeutic communication itself as input, we may have to revise sharply our current ways of thinking about the clinical process itself, and some of the notions which are inherent in it. At this point systematic presentations of the clinical and observational data which are the wealth of the clinical psychiatrist would be very helpful in establishing the significance of the neurophysiological findings and even in contributing clues as to the directions in which further advance might lie.

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MEDICAL, PSYCHIATRIC, AND LEGAL ASPECTS OF PREMENSTRUAL TENSION

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The subject of premenstrual tension has received much study by gynecologists, internists, and psychiatrists in the 26 years since the first paper describing this syndrome. In 1953, Oleck(1) commented on the legal aspects which have been elaborated upon by Stewart(37, 38). These latter articles, while containing misleading information, have brought the syndrome to the attention of the legal profession, and it is likely that, as a result, premenstrual tension will become of greater importance to the medicolegal expert and to the psychiatrist. Most previous articles have discussed the syndrome from limited points of view, and therefore the purpose of this paper is to correlate the observations made into a more coherent and encompassing whole. Definition, symptoms, etiology and physiology, psychiatric correlates, and limited legal aspects will be discussed. Treatment will be mentioned only briefly as there are many regimes reported and such treatment usually falls to the gynecologist or general medical practitioner.

DEFINITION OF PREMENSTRUAL TENSION

The most commonly used names are "premenstrual tension" or "premenstrual tension syndrome" (PTS); Greene and Dalton(8, 17) have suggested that the term "premenstrual syndrome" would be somewhat more accurate. In any event, this condition is a cyclic one which occurs in the week to two weeks prior to menstruation and is characterized by various physiologic changes which are usually terminated by menses. The word "tension" is not a good one, as many cases do not demonstrate this or various other psychologic changes. On the other hand, the emotional symptoms are often the most striking and complained about symptoms. Morton(27) categorizes premenstrual tension as a symptom complex occurring 10-14 days before menstruation with patients showing anxiety, headache, insomnia, emotional instability, fatigue, painful swelling of the breasts, abdominal bloating, low abdominal pain, nausea with occasional vomiting, etc., in various combinations. He states that 100% show nervous and emotional irritability which is in accord with the findings of Rees(34) that 100% show tension and depression. On the other hand, Greene and Dalton(18) stated that in their series, depression occurred in 6% and irritability in 6%. Other studies show similar variations due to both patient selection and the nature of the terms used. Because of the various backgrounds of authors writing about this condition, many semantic nuances are found. In general, words like anxiety, tension, depression, irritability, and neurotic are used in the broadest sense possible, and similar words used in this paper will be generally loose in meaning unless the context indicates otherwise. This is especially important to keep in mind when discussing this syndrome, as the degree of symptomatology is of much greater importance than the symptom itself, since many of the symptoms are almost universal in occurrence.

FREQUENCY OF THIS SYNDROME

The vast majority of women have various elements of this syndrome. This is due to the fact that they result from basically normal physiologic processes; because of this it is difficult to say what is pathologic and what is not. Morton(28) found 80% of women prisoners in a series of 249 volunteers showed elements of this syndrome. Eichner(10) in a study of nurses found that 70% had symptoms but only 6.5% requested or were willing to continue treatment; also that 50-75%(11) of women showed this syndrome. Other studies indicate the percentage in all women was 67%(22), 50%(13), 30-40%(40), 73%(26), and 40%(33). Pennington(32) found premenstrual symptoms in 95% of 1,000 subjects, mainly high school and college students. Estimates ran from 30% to 95%

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depending on the intensity and type of symptoms, the observer, and the group observed. Rees(33) in a study of 145 subjects noted 15.6% had severe premenstrual tension, 24.6% moderate and 56.5% no significant symptoms. Lamb(26) in a study of 127 student nurses showed that of the 92 having symptoms, 78 (or 61% of the total) had depressed feelings, irritability, or temper outbursts. Suarez-Murias(40) in a study of 107 student nurses found that 85.1% had one or more symptoms frequently or occasionally, 28.9% showed tension, 11% had frequent tension, irritability, and depression, and only 4% had no symptoms. In a private practice group of 100 patients, 42 had premenstrual tension, 4 had postmenstrual tension, and 5 mid-menstrual tension. Greene and Dalton(18) found that in 84 cases, 70 occurred in the premenstrual week, 9 at the onset of menstruation, and 1 at ovulation (3 had symptoms both at menstruation and at ovulation). On the basis of this, they felt that the name "premenstrual" was not entirely accurate. This also raises the question of the relationship of symptoms to physiologic changes, and as to what cases should be included in this diagnostic group. In the discussion on etiology, it will be seen that it is difficult to fit in these cases occurring at other than the premenstrual period with existing theories, and it also raises the question of the meaning of the different phases of the menstrual cycle to different women.

TABLE I

SYMPTOMS FOUND IN THE PREMENSTRUAL SYNDROME

	Greene and Dalton (18) 84PTS	Rees (34) PTS	Eichner and Waltner (11) Normal subjects	Eichner and Waltner (10) PTS
Headache	69.5%	63%	%	%
Nausea	29.7	37		
Lethargy (fatigue)	13.1	63	59	
Rheumatism	16.7			
Vertigo	10.6			
Depression	6.0	80	62	
Irritability	6.0	100	51	
Edema (congestion)	6.0	73	32	72
Rhinorrhea	7.2			
Mastalgia	2.4	63	69	
Tension		100	39	
Emotional lability				56
Anxiety		73		
Insomnia		40		
Pruritus		40		
Marked thirst		20		
Physical discomfort				58

SYMPTOMS

Table 1 gives some examples of the frequency of various symptoms. The wide variation is typical of those reported as some series report on cases who have come for treatment and others are based on studies of large groups of "normal" women. Suarez-Murias(40) states, "It is difficult to say what might be considered as 'normal' or acceptable discomfort incident to the physiology of the menstrual cycle."

Other complaints are low back pain and pelvic fullness. Also reported is an increased tendency to migraine, asthma, and epilepsy (for a discussion of the latter, see the report by Almqvist in Acta Scandinavia, No. 105 which counters this latter observation by showing that rhythmicity of epilepsy occurs in both sexes and in women not of the reproductive age so that the premenstrual period could not be considered as a primary cause). Weight gain, of course, reflects the edema and congestion.

Motor retardation and overactivity as well as other behavioral patterns are described. Emotional disorders, behavior problems, and criminal and sexual acting-out may occur at this period. This is to be expected and will be discussed in greater detail later. It has been stated that most of the crimes by women in Paris occur at this time(7). Morton(28) reported that at a New York State Farm for women prisoners, study revealed that 62% of the crimes of violence occurred in the premenstrual week and 17% occurred during menstruation.

Dalton(8) in making a diagnosis uses criteria such as 1. The symptoms must be present in each of the 3 previous cycles, 2. The symptoms are severe enough to demand medical advice or relief, and 3. Occurrence at a specific phase of the menstrual cycle.

ETIOLOGY AND PHYSIOLOGIC CHANGES

Theories concerning etiology are quite complex as symptoms are based on physiologic, especially endocrinologic factors, and psychiatric determinants, each of which affect different elements of the syndrome. It must also be kept in mind that no single definitive theory has been accepted, and a wide variety of factors are at work in this complex.

Frank(12) in 1931 postulated a high renal threshold for the excretion of estrogens with resultant high blood levels. Another early theory was that of a menstrual toxin as the cause. There have been purely psychogenic theories of causation, but these are not generally accepted in psychiatric or other medical circles. Vitamin deficiencies have been implicated. Wahlen(45) and Cazzola(6) have postulated treatment on the basis that the syndrome represents an allergic reaction to be treated by desensitization.

Current thought stresses hormonal and electrolyte imbalances. Commonly noted is sodium retention with resultant retention of fluid, which leads to edema, weight gain, and perhaps swelling of the breasts and abdominal symptoms such as distention. This may also be related to increased frequency of seizures reported in some patients. Some observers feel that sodium retention is the basic process in this syndrome and attribute the bulk of the symptomatology to this. For instance, Eichner and Waltner(11) state, "Psychological aberrations are not symptoms of a psychoneurosis, but probably the end result of a localized water retention in the higher centers of the brain." Bickers and Woods(5), Greene and Dalton(17), Pellanda(31), and Freed(13) stress the role of water retention. Some writers feel that the water retention is due to the overproduction of the antidiuretic factor (ADF) of the posterior lobe of the pituitary gland. Thus, water retention is a clear-cut finding in the syndrome; however, it does not seem that this change can be held responsible for the psychiatric symptoms noted. This latter statement is supported by the fact that 1. Many other illnesses characterized by a much greater degree of water retention do not show these emotional changes and 2. Treatment of the water retention will most often relieve the specific symptoms associated with it but not the emotional symptoms. Lamb *et al*(26) state, "It is also known that the symptoms of premenstrual tension cannot be accounted for on the basis of generalized water retention alone, inasmuch as some women with severe symptoms show no clinical evidence of this; edema occurring as part of other pathological processes is not associated with these symptoms; and there is alteration of water metabolism in normal controls." Rees(34) comments, "Dehydration did not counter often symptoms of nervous tension, irritability, depression, and anxiety. This suggests that hydration is not responsible for all the symptoms of the syndrome." It has also been observed that women often develop symptoms of hydration in midperiod without the emotional symptoms and that the nervous tension may disapear at the onset of menses even if hydration continues for several days(33). Eichner(9) in a later paper entitled "The Premenstrual Tension Syndrome—Fact or Fancy?" states, "Adequate diuresis does not completely cure nor does it prevent this disability." Freed and T. P. Greenhill(14) 18 years ago postulated that neurologic symptoms were due to edema of the nervous system, but J. P. Greenhill(19) in 1955 states that proof of this hypothesis is lacking.

Turning to endocrine factors, the picture becomes vastly more complicated due to the interrelationships of the endocrine system. Ovarian function has been related to this syndrome by most generally acceptable theories of causation. It is known that estrogens, androgens, and progestens all increase water retention(18). Estrogens stimulate endothelial proliferation which may account for changes in the breast as well as in the uterus itself. Israel(23) felt that PTS was due to an excess of unantagonized estrogen resulting from defective ovarian luteinization with lowered progesterone production. Rees(33) states, "The general weight of evidence appears to be in favour of the hypothesis that the premenstrual tension state is associated with low progesterone and high levels of

unantagonized estrogen." This concept is commonly accepted (14, 20, 27, 28, 43). Greene and Dalton(18) feel that it is the estrogen-progesterone ratio which determines whether or not symptoms occur. Thus, progesterone is often used in treatment, although Gillman(15) could produce symptoms with progesterone probably because of its water retention effect. This situation is yet to be definitively clarified. Lamb(26) in a careful study of 5 cases of PTS and 5 controls found the "endocrine activity within normal limits in all subjects with no demonstrable distinction between subjects with premenstrual tension and controls."

Before discussing carbohydrate metabolism in relation to this syndrome, some of the other laboratory findings will be briefly discussed. Morton(27, 28) utilized vaginal smears, basal temperatures, and endometrial biopsies as well as urinary hormonal assays. The endometrial biopsy in 22 of 23 patients showed proliferative or hyperplastic or mixed proliferative and luteal pictures, rather than the usual secretory type. The usual midcycle rise in temperature associated with ovulation did not occur, and urinary hormones showed a subnormal pregnandiol excretion. Three of 4 of Israel's cases(23) showed similar endometrial findings indicating pseudomenstruation. Mukherjee(29) found anovulatory menstruation in 51% of his cases. These primary findings indicate anovulatory cycles in PTS. Yet what seems to be a more commonly accepted theory is that premenstrual tension is associated with ovulation and should not be found otherwise. According to Rosenblum and his colleagues(36), estrogen levels do not rise in anovulatory cycles as they do in ovulatory cycles. Greenblatt(16) states, "One idea which finds general acceptance is that menstrual molimina occurs as a forerunner of ovulatory menstruation and is not associated with anovulatory menses." Bickers and Woods(5) found a well developed secretory phase on endometrial biopsy and state, "It appears the symptoms occur only in those patients who ovulate and who have active corpus luteum function." These tests are briefly discussed in view of the statement by Stewart(38) that premenstrual tension and accompanying mental changes can be verified for legal purposes by the above laboratory procedures. In general, these tests indicate the presence of ovulation and seemingly have not been correlated closely to the syndrome under discussion(36).

Carbohydrate metabolism is an important topic for consideration here, inasmuch as it has been implicated in certain medicolegal aspects which must be clarified, because of the statement(38), regarding lack of mental responsibility, that "spontaneous hypoglycemia suggests the possibility of proof after the event" and that mental changes in PTS are a result of hypoglycemia. Changes in carbohydrate metabolism have been observed frequently in PTS, and one encounters the terms, 'hypoglycemia', 'relative hypoglycemia', and 'subclinical hypoglycemia' as well as increased glucose tolerance. Suarez-Murias (40) states that there is a steady decline in blood sugar several days prior to menstruation with a return to normal within 24 hours after the onset of flow, with a flattened glucose tolerance curve. He gives as a typical example of a fasting blood sugar the following readings—107 mg.% at mid-interval, levels of 94, 90, 88, and 82 on successive days prior to menstruation and 104 mg.% postmenstrually. Thus, although there is a drop in the blood sugar level on the premenstrual period, the levels remain basically within the normal blood sugar range. This has been reported by other authors, but no definitely hypoglycemic fasting blood sugar are described. Morton (27) reports that in 16 of 23 cases, there was an increased glucose tolerance with the typical picture being a flattened or "plateau" curve. A typical finding of Morton(27) was 90 mg.% at the start, 125 at ½ hour, 104 at 1 hour, 90 at 2 hours, 80 at 3 hours and 74 at 4 hours. These curves indicate a lower level of functioning which he terms "subclinical hypoglycemia." His fasting blood sugars also were normal or slightly lowered. The point to be made here is that this "relative hypoglycemia" is quite mild and does not represent what would be clearly diagnosed as "hypoglycemia" which would then account for emotional and behavioral symptoms found in PTS. The

ordinary criteria for a diagnosis of hypoglycemia *per se* would demand much lower sugar levels as well as the necessary clinical picture. Certain of the symptoms of PTS may be related to these mild carbohydrate changes—increased appetite, fatigue, weakness, sweating, tremulousness, etc. The question of hypoglycemia has been discussed by Rennie and Howard(35) who found such curves very common in personality disorders and that when the personality disorder was corrected, there was a change in the curve to the more usual levels. They state, "It has been our impression that this hypoglycemia during a glucose tolerance test in otherwise normal persons is more common in those of asthenic habitus and of rather tense personality pattern." Lowered-glucose tolerance curves of a non-specific nature are common findings and are often encountered in emotional disorders. Whitehorn(46) found no cases of hyperglycemia in 958 mental patients, but 44 had sugar levels below 80 mg.%. These findings are in keeping with Selye's work on stress. Suarez-Murias states that "the plateau type of sugar tolerance curve might be considered to be incidental to tension and depression or sustained stress." Alexander and Portis (1) found similar and lower glucose tolerance curves in a variety of personality types, both in males and females. Thus subclinical hypoglycemia is a reflection of many different states; it is not a cause of these states and the symptoms produced, if any, are mild. Thus, if one found a severe clear-cut hypoglycemia in a patient with premenstrual tension, it would seem reasonable not to attribute the hypoglycemia to PTS, but to evaluate it as one would any such finding.

PSYCHIATRIC CORRELATES

The relationship of mental symptoms to PTS is exceedingly complex and must be approached with caution and discretion.

Rees(33) states that while bodily changes account for most of the symptoms of PTS, the patient's reaction is determined by the following factors:

"1. Constitutional
   a. Stability of the autonomic nervous system and homeostatic mechanisms.
   b. Personality type.
2. Degree of general stability
   a. General life adjustment
   b. Personality reaction
   c. Incidence of neurotic and personality disorders."

He feels that neurosis or emotional instability in itself does not account for the syndrome. Many neurotics do not have these symptoms; but of those that do, "the more severe the neurosis, the greater is the intensity of premenstrual tension symptoms." Since the syndrome is basically physiological, women with little or no overt neurosis can have some of these symptoms quite severely. Table 2 illustrates these findings.

TABLE 2

INCIDENCE OF PREMENSTRUAL TENSION IN NORMALS AND NEUROTICS

Degree of Tension	61 *Normals*	84 *Neurotics*
None	78.7%	38%
Moderate	16.4	30
Severe	5	32

THE INCIDENCE OF PREMENSTRUAL TENSION RELATED TO DEGREE OF NEUROTIC CONSTITUTION

Degree of Neurotic Constitution	*Degree of Premenstrual Tension*		
	Nil or mild	*Moderate*	*Severe*
Nil	76%	17%	7%
Mild	56	36	8
Severe	15	48	37

Variations of psychodynamic processes and ovarian activity from the psychoanalytic standpoint have been investigated by Benedek and Rubenstein(3, 4). Cooke (7) points out that women who have a fear of becoming pregnant often have severe premenstrual tension. Lamb *et al* (26), by carefully studying normal and controls, including EEG. records, reported that there is no indication that the behavioral manifestations of premenstrual tension reflect directly alterations in the cranial neurophysiology so measured, and also that

there appeared to be some definable differences in behavior other than the premenstrual manifestations differentiating the two groups. The subjects with premenstrual tension showed more marked emotional lability throughout

their cycles and in general were less assertive individuals.

Suarez-Murias (40) states that

The psychologic aspect of premenstrual tension seems related largely to the manner in which the patient accepts psychically the menstrual function and also to the manner in which the patient unconsciously utilizes the menstrual function to express distress about pressing environmental situations of life, difficult interpersonal relationships, or about her own attitude concerning being a woman, or even about the fact of existence.

He feels that personality type and environmental setting are the real factors in the psychologic manifestations of premenstrual tension. Israel(22) states,

Irrespective of the exacting mechanism, it cannot be denied; because of the nature of the symptoms, that emotional disturbances and psychogenic traumata not only aggravate the symptoms, but evoke additional ones.

The independence of the psychiatric symptoms from the physiologic symptoms are commented on by Greene and Dalton(17) at times of stress, symptoms become unbearable and of increased severity, whilst when life flows along like a song, the symptoms decrease or may pass by unnoticed.

Veit(44) comments that premenstrual tension is often encountered in psychiatric conditions, especially in hysterical personalities.

These comments are quoted to bring home this point—the emotional reactions to stress depend on the personality and not upon the stress. This is a general statement subject to exceptions not especially pertinent here. The premenstrual syndrome is based on a physiologic stress of mild degree which occurs within relatively narrow limits to all women. Nonetheless, the individual's equilibrium is affected and the woman may be subject to various unpleasant bodily feelings as described previously. It would be reasonable to anticipate that any emotional symptoms, especially those of the "neurotic" variety would be aggravated during this period. The same individual may show the same emotional symptoms under stress of other kinds—domestic difficulties, illness of a husband, etc. In general, emotional reactions and behavior would correlate with the basic personality type rather than with the endocrine changes themselves.

Impulsive-hysterical individuals, individuals with antisocial personalities and other personality disorders, etc., would be expected to get into behavioral difficulties more during this period than otherwise and this is confirmed by numerous reports.

It might be helpful at this point to consider comments in the literature on the relationship of premenstrual tension and mental disease. Since the endocrine system can reflect mental conditions, variations in the menstrual pattern of women have long been found. Allen and Henry(2) studied the menstrual pattern in 100 psychiatric patients which in general showed many variations but in no consistent pattern. Hypomanic patients sometimes showed more profuse menses, and severe depressions, scanty menses. These findings, of course, have little to do with the disease itself. Gregory(21) states, "In fact, it is more probable that the endocrine changes in psychotics are a sequel to, rather than a causative factor in their illness." Strachan and Skottowe(39) showed that psychiatric patients showed menstrual abnormality more than gynecological patients but that those abnormalities were not considerable. They noted that 19% of a group of mostly schizophrenic patients showed exacerbations of symptoms at the menstrual period (not the premenstrual period). Suarez-Murias(41) found 48% of a group of 40 women in a mental institution had PTS, but only 11.2% of a group without mental disturbances.

It has been a common observation that many psychotics, especially schizophrenics, show exacerbations of symptoms during the premenstrual syndrome and easing off with the onset of bleeding. Of psychiatrists consulted who have had extensive experience in state hospitals and elsewhere, none could recall a case where an individual had a premenstrual psychosis with no basic psychotic personality between periods. One example of this, though, is the case of Knaus(25) reported by Gregory. He described a schizophrenic woman whose marked psychosis appeared with each menstrual period. Williams and Weekes(47) reported on 16 cases with psychotic episodes during the premenstrual period. These episodes resembled either manic

forms of manic-depressive psychosis or the catatonic form of schizophrenia.

The relationship of severe mental disease and premenstrual tension is clearly discussed by Israel(22),

Certain bizarre manifestations, including psychotic episodes and epileptiform seizures, have been attributed to premenstrual tension, because they were observed to occur premenstrually in recurring fashion. The woman who develops a *psychotic episode*, however brief, in the course of one of her customary bouts of premenstrual tension must not be assumed . . . to be exhibiting merely psychologic manifestations of an emotionally disturbing illness . . . such singular symptoms as evanescent psychotic episodes and epilepsy must be carefully scrutinized and the patient regarded as having a more serious illness than premenstrual tension.

Gregory(21) in discussing menstrual psychosis (including premenstrual psychosis) concludes,

It is evident that the concept of a menstrual psychosis can now be abandoned. No convincing evidence has been produced to show that such an entity exists. This view is now reflected in current textbooks of psychiatry and medicine.

Thus, it would seem that emotional symptoms are not correlated with the other physiologic changes in the syndrome and to such changes as edema or toxic influences. Because of the stress associated with the discomfort of PTS, personality deviations may be more marked, and so one sees the picture of a bloated, uncomfortable woman, perhaps nauseated, who has difficulty fitting into her clothes and who is more than usually nervous, tense, anxious, depressed and irritable. However, severe mental change requiring treatment is rare; cases of clearcut psychoses restricted to premenstrual periods are extremely unusual. Since PTS is so common and since psychosis in association with it is so rare, it can hardly be said that one causes the other.

SOME LEGAL ASPECTS OF PREMENSTRUAL TENSION

As mentioned earlier, this syndrome has become a subject of interest in legal circles, primarily in regard to questions of mental responsibility. It is therefore possible that physicians, including psychiatrists, may be called upon to evaluate cases of PTS. For this reason, a more or less general picture of PTS has been presented, correlating various aspects of PTS which have usually been described in specialty journals.

Oleck(30), a prominent legal educator, has stated,

In terms of law, premenstrual tension with its periodic hypoglycemia is analogous to temporary insanity or incompetence with one critically important difference in the case of premenstrual tension, at least. Temporary incompetence or insanity is primarily a matter of subjective evidence, is very difficult to prove; and is easily subject to abuse as a rule of law. Premenstrual tension, on the other hand, may well be a matter of objective evidence, not too difficult to prove, if it exists, and can be verified by scientific tests after the event as well as before.

In contrast, therefore, to the accepted mental conditions that exclude legal responsibility, as in the case of the insane criminal, the investigation of the causational aspects of crime in cases of premenstrual tension, should be based primarily on the medicolegal rather than the psychiatric criteria. These latter facts largely remove premenstrual tension from the legal area of subjective and emotional argument into the area of provable fact, subject to searching tests according to the established rules of evidence.

Stewart (38) echoes this view.

From the preceding material, it can be seen that there is little to support these views. Firstly, the premenstrual tension syndrome is one in which the laboratory tests, to this time, have been of little value. Greene and Dalton(17) state. "Unfortunately there is no test to assist the diagnosis of premenstrual syndrome;" and they add, "today the recognition of this syndrome must depend on the intelligence of the patient, or her doctor."

Actually the problem is not one of diagnosis. If one examines thoroughly enough, one can pin this label on most women. A more pertinent question is "Does a diagnosis of PTS have any meaning in evaluating mental status?" To show that a woman has physiologic changes that half of the female population also has is of not much value. It is even less useful, in fact totally misleading, to try to correlate a procedure such as a vaginal smear with a person's legal responsibility. Like most other situa-

tions, evaluating emotional and behavioral aspects of a person requires expert evaluation. The question of mental responsibility would be evaluated in the ordinary manner, and if PTS seemed to be intimately related, then one could use all the findings to understand the clinical picture more accurately.

As far as the question of hypoglycemia with resultant "temporary insanity" is concerned, it would be quite rare, on the basis of what has been described, to expect one to make such a correlation. Indeed, even checking for it seems not indicated unless one can obtain a history of hypoglycemic symptomatology—relation to eating, relief of symptoms with food intake, perhaps transient hemiplegias, aphasias, confusion, incoherence, minor or major convulsive seizures, and periods of coma. Blood sugars and glucose tolerance tests with possible reactivation of symptoms during the latter would confirm this diagnosis. For practical purposes, this avenue of inquiry is not likely to be productive.

Thus, for medicolegal purposes, PTS may be related to emotional changes, the degree of which would be measured by usual standards. Since there are mental changes and since PTS has been brought to the attention of lawyers, it is probable that psychiatrists may be called upon to testify in cases where the defendant pleads "not guilty" by reason of temporary insanity due to PTS. There are some yardsticks which may be of help in evaluation. The idea of a single episode of "temporary insanity" unassociated with any other findings would be a doubtful one. An individual showing indications of acute psychotic reactions at this time should show a basically sick personality (see the earlier statement by Israel). Another element which should be found is a history of periodicity with similar symptoms during each premenstrual period over a period of time. Thus a woman might be shown to have had paranoid episodes in the week before menses over a period of years; it would be expected that some supportive evidence should be found in previous medical records. Subsequent to the criminal act, careful psychiatric examination during the premenstrual period should show corroborative evidence. Finding endocrine evidence of premenstrual tension would not be corroborative.

As intimated in this paper, evidence for "temporary insanity" would most likely be lacking, and the individual would be held responsible in the absence of definite psychiatric disease. It is possible, however, in some cases, these concepts might be used in arguing mitigating circumstances, especially since it would be most often a matter for the jury to make final decisions on the question of the relationships.

One more point should be mentioned—PTS is a treatable syndrome, and numerous regimes have been reported in the literature, especially in general medical and gynecologic journals. Morton(28) showed how treatment in an institutional setting alleviated many behavioral problems. Treating the physiologic symptoms often eases the emotional symptoms; the converse does not seem to hold true. It might be expected that, the greater the degree of character or personality defect, the less likely drug therapy would help. Thus in cases of young women with temper tantrums or acting-out in premenstrual periods (in which there is no question of mental responsibility), a recommendation of treatment might result in easing various social problems. Therefore, psychiatrists working for juvenile courts, girls' detention homes, prisons, etc., might keep this syndrome in mind.

Summary

Various aspects of the problem of the premenstrual tension syndrome have been discussed—from medical, psychiatric, and legal viewpoints. The syndrome has been defined with comments on frequency and symptoms with some elaboration on physiologic changes and theories of etiology. This in turn has been correlated as much as possible with psychiatric findings, and lastly the relationship of the syndrome to legal considerations has been briefly discussed.

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THE METHODOLOGICAL IMPORTANCE OF DISTINGUISHING TWO SEPARATE CAUSAL CHAINS WHICH TOGETHER PRODUCE THE CLINICAL PICTURE OF PSYCHOSIS[1]

OTTO F. EHRENTHEIL, M.D.[2]

Overholser(1) has compared the history of psychiatry during the last hundred years with a pendulum, swinging between somatic and psychologic viewpoints of the cause and treatment of mental diseases. Thus, overemphasis on the psychodynamic explanation in the recent past has given way to the present revival of physiological views. For example, the preface of a recent textbook of psychiatry states:

> Mental diseases are caused by physical disorders and they respond to scientific medical treatment the same as all other diseases, in consideration of the special nature and the function of the brain and the nervous system. If mental patients are to be treated properly, as medical and not as psychological problems, the fundamental rules of medicine must be applied. In order to do this, it is essential that they be treated as medical problems, not as mental cases as in the past(2).

Yet, a multiple etiologic conception of mental disease was propagated as early as 50 years ago by Adolf Meyer. As summarized by Stanley Cobb(3) Meyer

> insisted on thinking of the individual and of all of the pertinent facts related to that person—his genes, the lesions he may have in his cerebrum, his chemistry, his hormones, his social situation, his economic situation, and his psychologic experiences. He then would make a summation concerning this individual, showing a concatenation of events at a certain point in time.

The purpose of the present paper is to show that one group of these causes, the pathologic-physiological, produces the disturbance in mental functioning which allows a break with reality; while another group of causes, the psychodynamic and social motivations, determines the direction which the psychotic deviation will take. The two avenues of research examine two different, but equally important, parts of the clinical picture of psychoses. This delineation of two groups of causes should not be misinterpreted as a revival of the old body-mind problem. Malamud(4) and Cobb(3) and many others have clearly indicated that the "unwarranted dichotomy of mind and body" should be discarded. Thus Cobb(3) points to the fact that no biologic process occurs without changes in metabolic chemistry, in electricity and in structure of cells and tissues. Thinking, listening, seeing, talking, feeling are all biologic processes taking place in the brain, the organ of the mind. Accordingly, he pleaded for the avoidance of words like "organic" and "functional," "chronic organic states," "functional psychosis," etc. and noted that "all function is organic, so the slang use of the terms 'organic' or 'functional' is meaningless."

However, though Cobb's analysis is generally accepted, we all, including Cobb, distinguish between a paralysis of an arm due to a gunshot injury of the brachial nerve and a hysterical paralysis of an arm. This author agrees with Cobb that the latter should not be called a "functional paralysis," but it may be called "psychogenic," even though we know that every psychic process is at the same time a metabolic process of the brain cells.

Curran and Partridge(5) would have us distinguish 3 groups of causes of mental disorders, namely: psychological, physical, and constitutional. They emphasize that while all 3 groups of causes are present in all mental disorders, one of these groups is often predominant. These two British psychiatrists use many examples to support their view. For example the hallucinations of a severe case of typhoid fever are produced (a) by the physical condition (ty-

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phoid fever), (b) by constitutional factors (an equally severe case of typhoid fever may not develop hallucinations in a patient with a different endowment of hereditary factors), and (c) the hallucinations of patients with typhoid fever will be very different since the individual psychological life experiences are reflected in their particular kind of hallucinations.

While the distinction between the physical and constitutional causes is certainly valid, it is clear that this distinction represents only a more detailed analysis of the physiological causal chain.

THE TWO CAUSAL CHAINS IN ORGANIC BRAIN DISEASE [3]

Research in the area of organic brain diseases has understandably emphasized the pathologic-physiological chain of events which produces a general disturbance in the mental functioning evident also in some "negative" features of the clinical picture, *e.g.* loss of memory. On the other hand, with a few notable exceptions(6) little effort has been directed to psychodynamic analysis of the psychotic phenomena in organic brain diseases. Yet, studies of the whole psychodynamic background does, even in organic brain diseases, reveal why the patient has his particular hallucinations and delusions. The two separate causal chains are illustrated by the following case report of a man with constitutional hypogonadism who developed organic brain disease and where the contents of his hallucinations and delusions appear to be reactions to his hypogonadism.

CASE HISTORY

T.E.R., 61 years old, white male, was admitted to the VA (neuropsychiatric) Hospital, Bedford, Mass. as a transfer from a general medical hospital on October 4, 1956. His history revealed no known childhood illnesses. The patient was in the U.S. Army during World War I for 11 months, and served overseas. He has been married over 35 years, and has no children. According to the patient, his wife had one pregnancy, but the child died at birth. However, the wife has denied this, stating that she has never conceived. The patient was a shoe worker for 40 years. He was apparently quite well until he was 56 years old, when he had his first admission to a general medical and surgical VA hospital with complaints of weakness and some pain in the legs and joints. Diagnosis at that time: 1. Arteriosclerosis obliterans of both lower extremities. 2. Generalized arteriosclerosis. 3. Generalized osteoarthritis. 4. Obesity exogenous. 5. Hypogonadism. A psychosis was not evident.

He was readmitted on October 1, 1956. He had not worked for about 2 years. A history was rather difficult to obtain as the patient was obviously changing his past and present history, and was quite confused. He was of the opinion that Superman visited him every day and that Superman and he flew off together and then returned. He also stated that his family physician gave him pills to make him sick and die so that the doctor could marry his wife. A diagnosis of cerebral arteriosclerosis with psychosis was made, and he was transferred to this hospital on October 4, 1956.

He was sent directly to the acute medical ward because of his weakness. He had a rapid, not quite regular, pulse. No pulse could be felt on the dorsalis pedis and posterior tibial areries on either extremity. There was marked hypogonadism manifested by absence of beard and mustache, by female distribution of fat, very small testicles, and small penis.

Laboratory findings: An EKG showed atrial flutter-fibrillations. A spinal fluid examination was completely negative. X-ray of skull showed no pathology. A pneumoencephalogram showed diffuse cortical atrophy. Electroencephalogram showed some asymmetry, but was regarded as within normal limits.

Course in the hospital: During the first few days he had sudden weak spells wherein he fell to the floor, and when seen by the nurses his pulse rate was 64 but weak, and the blood pressure was 142/90. A presumptive diagnosis of Adams-Stokes syndrome was made. He was placed on digitalis therapy because of the atrial flutter-fibrillation. He reverted to normal sinus rhythm after digitalization, and the weak spells did not recur.

The patient appeared confused, showed marked memory defects and delusions. He did not know his birthday and was disoriented as to time and place. He thought that it was the year 1936 and believed that he was 16 years old, that he got married before the war and when he came back his wife was married to another man, his cousin. He changed the

[3] Localized brain lesions are not dealt with in this paper. They may *e.g.* when located in the frontal or temporal lobes produce characteristic psychiatric pictures.

story later and said that he had been living with his wife for 6 years, that he had sexual intercourse and it was satisfying to him but not to his wife, because his penis was too small and his wife wanted to have a "bigger one," and that this was the reason she liked other men. He talked about his "ex-wife." He stated that he is not interested very much in sex life because he has "a very small one." He said that he is unhappy here, believing he is in prison, and wishes to go home. When asked where he wants to go as he had just said that his wife is living with another man, he said, "I wish to go home to my folks." He also said that he was killed 6 years ago and that he had been Superman after that, or that he is visited daily by Superman, that he flies every evening with Superman through space, and that he returns later to his bed. He mentioned that his wife married him to get his one million dollars.

It was noted that the patient on some days talked very lucidly, and on other days he was very confused. The signs and symptoms of the brain disease in this patient are consistent with early vascular disease, as well as with a degenerative disease of the brain such as Alzheimer's.

The official, established diagnoses read as follows: 1. Chronic brain syndrome, associated with arteriosclerosis with psychotic reaction, manifested by confusion, marked memory defect, childishness, delusions, disorientation, etc. 2. Testicular hypogonadism. 3. Proxymal atrial flutter-fibrillation due to unknown cause. 4. Cerebral cortical atrophy, generalized.

Discussion

The patient's ideas, *e.g.* that he had impregnated his wife, his hallucinations and delusions that he is a friend of, or he is himself Superman, are most probably wish-phantasies of a man with an organic inferiority of his genital apparatus, who may have been hurt in his self-esteem by this fact. We do not know whether he had these phantasies as pleasant day-dreams before he became mentally sick, but we do know that he worked in the factory until 2 years before his last hospital admission. The hypogonadism which existed all his life is, in my opinion, the key to the explanation of the *psychodynamics* of the psychiatric picture. However, the patient did not become psychotic due to his hypogonadism, but became psychotic only after the brain cells were damaged by diffuse atrophy of the brain. The organic brain disease is responsible for the fuzziness of his thinking, for impairment of his judgment, and impairment of his alert consciousness, so that he was no longer able to distinguish between reality and wish-fulfilling phantasies. The study of psychodynamics, rooted in personality and life experience, shows the unobtainable wishes for which the hallucinations and delusions bring fulfillments and explains in this way the *direction* to which the hallucinations and delusions of this patient gravitated.

In other words, the investigation of the psychodynamics in this case and similarly in other organic brain syndrome patients will throw light on the reasons why these patients have *their particular kind of hallucinations and delusions*, but it will not explain why hallucinations and delusions appeared at all, or how it became possible that the break with reality occurred. These latter events were due to the pathologic-physiological causal chain which represents the etiology of the organic brain disease; the loss of brain function will contribute to the psychiatric picture the "negative" elements like loss of memory, inability to perform simple mathematical tasks, etc. These negative elements will vary from one patient to the other in degree, but will be otherwise similar in various patients. The positive elements of the psychiatric picture, the preoccupations of the patient, his hallucinations and delusions, are determined by his whole psychodynamic and social-historical background.

The distinction between these two causal chains can be made clinically in the earlier stages of organic brain diseases. In advanced deterioration, the personality of the patient is extinguished, and he is then only a "vegetable."

The observation that the two causal chains may (a) at times enhance each other so as to produce the psychiatric breakdown sooner or in more severe form, and (b) sometimes may counteract each other, so as to prevent the psychiatric breakdown or make it milder, does not detract from the basic separateness of the

two causal chains. Rothschild(7), *e.g.*, examined the role of the premorbid personality in arteriosclerotic psychoses and noted :

> A study of the clinical-anatomic relationships in arteriosclerotic psychoses reveals numerous inconsistencies, which indicate that different persons vary greatly in their ability to withstand (the effects of) cerebral damage. The observations suggest that individuals who are in any way handicapped psychologically are highly vulnerable to arteriosclerotic psychoses.

Neustadt(8) expressed the same observation more optimistically and pointed out that the integrative forces of the personality fight the organic disease. The will to fight the organic impairment of the brain function is very dependent on the personality and some people are able to function remarkably well until their death, even though the brain showed at autopsy very severe changes of the kind usually found in senile dementia, and conversely in some severe cases of senile dementia pathologic anatomic findings are comparatively slight.

The writer(9) in discussing the differential diagnosis of dementias in aged persons, cautioned that one should not rule out a diagnosis of organic psychosis when the mental symptoms are precipitated by an unhappy event, since the death of a near relative for example, may suddenly decrease the will to fight the effects of the organic brain disease.

The differentiation of two separate causal chains which produce the total clinical picture of psychosis is by no means new. As long ago as 1884 the great neurologist John Hughlings Jackson(10) delivered a lecture at the Royal College of Physicians in London in which he pointed out that the positive mental symptoms like illusions, hallucinations, delusions, and extravagant conduct are not produced by a pathological process. On the contrary, they are the outcome of activity of nervous elements untouched by any pathological process, they "represent the survival of the patient's then fittest states on the lower level of evolution" after the normally highest level of cerebral evolution is rendered functionless by disease (dissolution). To quote him literally :

> The patient's illusions, etc. are not caused by disease, but are the outcome of activity of what is left of him (of what disease has spared), of all there then is of him ; his illusions, etc., are his mind.

Again, in a paper in 1894 Jackson(10) concluded that one must not speak crudely of disease causing the symptoms of insanity. Popularly the expression may pass, but, properly speaking, disease of the highest cerebral centres does not cause positive mental states, however abnormal they may seem. Disease only causes the physical condition for the negative element of the mental condition, defective perception, less reasoning power, less adaptation to present surroundings, and absence of the "finest" emotions. The positive mental element, say an elaborate delusion, however absurd it may be, signifies activities of healthy nervous arrangement, going on in what has remained intact of the next highest cerebral centres (after the normally highest centers are destroyed or out of commission by disease).

It should be emphasized that the general principle of the separate existence of the two causal chains in organic brain disease does not depend on the correctness of Jackson's particular asumption that hallucinations and delusions are due to the surviving centres of the brain and not to the insanity.

THE TWO CAUSAL CHAINS IN PSYCHOSES WITHOUT KNOWN STRUCTURAL PATHOLOGY

On the basis of the above discussion the question may be asked whether two separate causal chains may not also be assumed to be present in so-called "functional" psychoses. Investigations of physical, chemical, enzymatic, genetic, and other factors may uncover a malfunctioning of the brain cells *e.g.* in schizophrenics which, in turn, may result in faulty perception, a fuzzy thinking in general, leading to the possibility of appearance of hallucinations and delusions, and thus a break with reality. The psychodynamic approach, on the other hand, may uncover the other causal chain, namely that which explains why the patient has his particular psychotic symptoms. Raising this viewpoint does not diminish the great importance of research on

disturbed thinking and behavior, nor does it imply the body-mind problem. Inquiry in the realm of psychodynamics is just as important as research in the realm of pathophysiology of the brain tissue. A personal recollection of Ophuijsen(11) may be of interest in this connection. Ophuijsen visited Sigmund Freud in the summer of 1927. The then well-known endocrinologist Steinach was also present when Freud said,

. . . . I am finally convinced that one day all these disturbances we are trying to understand will be treated by means of hormones and similar substances. I am glad it is not yet that far, as it gives us the opportunity of investigating what might otherwise be overlooked.

The frame of reference to which a particular research paper belongs should be clearly distinguished. That this is unfortunately not always done was shown recently in an otherwise very interesting and excellent paper by Opler(12). He introduces his article quoting a notion of Harry Stack Sullivan that schizophrenia is "not a disease but a way of life," adding that this was a "profound remark." Then Opler proceeds to report his studies on 30 Irish and 30 Italian schizophrenic patients. Before studying the patients themselves, field surveys of Irish and Italian family life in the section of New York City whence the patients came, were made. Each ethnic group showed a clear and consistent pattern. The Irish family tends to be dominated by the mother; the father is often a weak and shadowy figure. The mother, assuming most of the major responsibilities, may treat her sons as "forever boys and burdens." In the Irish home active expression of emotions is frowned upon; sexual feelings are clouded with conceptions of sin. All this is reflected in the personality of the male offspring. The Irish male is apt to be quiet, repressed, shy or fearful of women and, as his literature attests, given to fantasy as an outlet for his emotions.

The Italian home is an almost total contrast. The dominant figure is the father. He rules the family with a sometimes benevolent, sometimes rough hand. Emotions and passions are allowed free expression. Little or no sin or guilt is attached to sex. As a result the Italian male is proverbially excitable, given to acting out his emotions and sometimes hostile to his father and older brothers (to whom the father may delegate authority over him).

Opler now finds that the psychiatric patterns which the two groups of patients show are very dissimilar. To quote directly from his summary:

We see the Irish patient fearful of females, low in self-esteem, tortured by feelings of guilt and inadequacy, sunk in paranoid delusions. We see the Italian schizophrenic, on the other hand, hostile to male figures, overtly homosexual, extremely impulsive and excitable, subject to moods of depression or uncontrolled elation, sometimes assaultive and destructive. Each of these patterns bears the imprint of the underlying family experience and pattern of stress.

Both groups of Opler's patients were schizophrenic, and even if we admit the probability that schizophrenia may represent a group of several diseases, this will not explain the difference. There certainly does not exist an Irish schizophrenia distinguished from an Italian schizophrenia. But their exist two separate causal chains which work in both groups. The pathologic-physiological causal chain is probably identical in all of Opler's patients. It produced a malfunctioning of the brain cells resulting in faulty perception, "fuzzy" thinking in general, and in this way allowed the break with the reality. But Opler's studies show dramatically how the different psychodynamic background in the two ethnic groups produced the striking dissimilarities in the florid symptoms of their psychosis.

While in the organic brain diseases the independent existence of the two causal chains can be more clearly established, one cannot ignore—as long as the etiology of the so-called functional psychoses is unknown—the possibility that the causal chains may not be as independent in such psychoses as in the organic brain syndromes. There exists, in particular, the possibility that physiological changes due to intensive emotions, *e.g.* an accumulation of adrenochrome or other metabolites(13), may produce the somatic conditions in the brain tissue, which in turn may represent

the pathologic-physiological causal chain of the psychosis. The admission of this notion does not detract from the practicability of the distinction. At the same time this conception may enhance clear thinking and prevent misunderstandings among researchers in resolving apparent contradictions in their findings.

Summary and Conclusions

1. Two separate and independent causal chains can explain the clinical picture in organic brain syndromes. One chain, based on pathologic-physiological changes, causes the brain function to be disturbed, and another causal chain based on psychodynamic principles determines the area of preoccupation of the patient and his particular kind of hallucinations and delusions.

2. The viewpoint is emphasized that the same distinction should be made in psychoses without known structural disturbances.

3. Pathological-physiological studies are concerned with the physical conditions which make it possible for a mental deviation to occur, and of course they are also concerned with the physical and chemical processes, correlated with thinking and feeling. The psychodynamic approach, on the other hand, uncovers the factors which determine the direction of the mental deviation or in other words why the patient has his particular kind of mental symptoms, his particular delusions and hallucinations, etc. It is obvious that both avenues of inquiry are of greatest importance; the clear understanding of the frame of reference, namely which of the two different causal chains is being investigated in a particular study may prevent misunderstanding among researchers.

4. As long as the etiology of psychoses without structural changes is unknown, the possibility exists that intense emotions may produce those physiological conditions which are necessary for the appearance of the psychosis. This possibility does not lessen, however, the practicability of the distinction of the two causal chains for clarity of thinking.

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PSYCHIATRIC ORTHOËPY

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The new instructor in psychiatry may have many anxieties about his knowledge, skill, and teaching techniques, but he is rarely worried about his pronunciation. He tends, like most physicians, to consider precise pronunciation unimportant, and to laugh at Professor Henry Higgins and his kind as pedantic exhibitionists. It is not until one has been embarrassed by having a medical student or resident question one's pronunciation of a common psychiatric term that one becomes concerned about orthoëpy (correct pronunciation). One then discovers that many psychiatrists consistently mispronounce certain technical words, and, as Dr. Jean V. Cooke(1) has pointed out, "The resident staff and younger doctors usually pronounce words as they have heard them used in the classroom and the clinic by their teachers and by the senior staff. This suggests the responsibility of lecturers and teachers in exercising some care in speech since their use of words will be considered authoritative by many in their audience."

There are about two dozen technical words and a dozen proper names frequently used and often mispronounced by psychiatrists. Most of these words and names are in sufficiently common usage to be listed in the American Psychiatric Association's *Psychiatric Glossary*(2). Almost all of these words are in the group in which uniform pronunciations are accepted by all authorities, as represented by the standard general, medical, and psychiatric dictionaries(3). As a rule, these authorities are in close agreement, and their choices indicate the orthodox pronunciations in widest use among educated people.

Perhaps the most commonly mispronounced psychiatric word is "schizophrenia," in which a non-existent "t" sound is so often inserted (possibly because of our fondness for the slang abbreviations "schiz" and "schizy," which sound absurd *without* the "t" sound). The orthoëpist, however, prefers "SKIZ-oh-FREE-ne-uh," with a soft "z" sound (as in "gauze") and a long "e" sound.[2] "Hebephrenia" is also pronounced with long "e" sounds, viz., "hee-bih-FREE-ne-uh." The "e" in "ego," too, has the same sound: "EE-go" (not "EGG-oh" or "AY-go," which are considered affected or incorrect pronounciations in this country).

Curiously, many of the technical terms relating to sexuality are among the psychiatric words most frequently mispronounced. "Fellatio" apparently may be pronounced to rhyme either with "patio" or with "ratio," as "fel-LAH-tee-oh" or "fel-LAY-shee-oh," but "SAY-diz'm" is *not* acceptable as an alternative for the correct "SAD-iz'm" (the first syllable rhyming with "bad"). "Masochism" has the same "a" sound ("MAZ-uh-kiz'm" or "MAS-uh-kiz'm") and so does "phallus," which should rhyme with an ungrammatical "shall us." The "e" in "pederasty" has the short sound as in "bed," thus: "PEHD-uh-ras-tee." The pronunciation of "satyriasis" is quite simple: "sat-uh-RYE-uh-sis." In "impotence" the accent is on the *first* syllable: "IM-puh-tuhns," but in "menarche" (also a *three*-syllable word) the accent should be on the *second* syllable: "muh-NAR-kuh." And "couvade," the word describing that odd but pleasant primitive custom of the *husband* going to bed for a few weeks after the wife gives birth to a child, has only two syllables and a broad "a" sound in the second: "koo-VAHD."

Several psychiatric terms of French derivation give non-Gallic practitioners trouble. "Déjà vu" is pronounced (approximately) "day-zhah VIEW." "Folie à deux" sounds like "foh-lee ah DUH." "La belle indifférence" is pronounced "lah BELL ahn-dee-fay-RAHNSE."

[1] From the Malcolm Bliss Mental Health Center and the department of psychiatry and neurology, Washington University School of Medicine, St. Louis, Mo.

[2] To avoid the somewhat confusing diacritical marks used by lexicographers to indicate pronunciation, I have used the simpler method of phonetic respelling with the accented syllable or syllables printed in capitals.

A few miscellaneous words end the list. "Analysand" is pronounced "uh-NAL-uh-zand." "Imago" and "malinger" both have hard "g" sounds: "ih-MAY-go" and "muh-LING-gur" (the latter rhyming with "singer"). The correct pronunciation of "neologism" is "nee-OL-uh-jiz'm," and that of "verbigeration" is "vur-bidj-ur-AY-shun." Both "a-DULT" and "re-SEARCH" correctly have the accent on the last syllable, but in "reserpine" the accent may be on either the first or the second syllable: "RES-er-peen" or "re-SER-peen." "Sequela" is *not* "see-QUEL-luh" but "sih-QUEE-luh;" the plural "sequelae" is "sih-QUEE-lee." "Data" (a plural word; the singular is "datum") and "status" both take the long "a" sound: "DAY-tuh" and "STAY-tus."[3]

Pronunciation of proper names depends partly on the name's etymology and partly on the desire or whim or its owner. Adler used the Germanic broad "a" sound, for example ("AHD-ler"), and so did Karl Abraham ("AHB-rah-hahm"). Eugen Bleuler used the hard "g" sound (as in "go") in his first name, and the "oy" sound for "eu" in both first and last names: "OY-gen BLOY-ler." The same sound with the "eu" spelling is heard in "Breuer," that is, "BROY-er" (to rhyme with "lawyer"). Sandor Ferenczi's name should be pronounced with the proper Hungarian intonation: "SHAHN-dor FEH-ren-see." Pierre Janet's name is pronounced "pee-AIR zhah-NAY," Wagner von Jauregg's is "VAHG-ner fohn YOW-regg," Jung's is "YOONG," and Philippe Pinel's is "fil-LEEP pee-NEL."

Undoubtedly some psychiatrists feel that a discussion such as this is completely academic. Yet psychiatrists perhaps more than most other professional persons are aware of the importance of meaningful and precise communication. A speaker's eccentric pronunciation of a word or a name may distract or amuse his listener and decrease the clarity and the effect of what he has to say. It is to our professional advantage, then, to encourage educated pronunciation among the educated; if everyone is his own authority communication will become increasingly difficult.[4]

[3] The words psychiatry (si-KI-uh-tre) and psychiatric (sigh-ke-AT-rik) have also been much abused, attention having been called to the fact in this Journal, Vol. 90, July 1933, pp. 201. (Ed.)

[4] I should like to thank Professor Jarvis Thurston of the Department of English, Washington University, for his kind interest and helpful criticism in the preparation of this paper.

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TOWARD THE EFFECTIVE USE OF THE PSYCHOLOGICAL CONSULTATION

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INTRODUCTION

This paper is an attempt both to describe the circumstances under which a referral for psychological consultation is appropriate and to indicate what a referral source may reasonably expect from a psychological evaluation. While three major areas employ the psychological consultation, service, teaching and research, it has been our experience that the unique values and limitations of the psychological appraisal have often not been explicitly understood. To use the psychological evaluation effectively, it is imperative that there be as complete knowledge as possible of its unique contributions. Moreover, because a complete psychological workup may take from 3 to 20 hours, the sheer expenditure of professional time demands that this consultation be used with discrimination and full awareness of its potentialities. As this implies, the use of the psychological consultation is, in the usual hospital or clinic setting, a problem of economics; while theoretically it could add something to every case, if only a confirmatory opinion, it is often not practical or possible to see every case. Hence, criteria must be carefully set up to discriminate among referrals as to their relative appropriateness.

In the usual setting, the appropriate circumstance for the psychological consultation lies somewhere between the routine referral of all patients, and the nonreferral of any patients. The difficulty with the former is that the psychological report tends to become so routine that it is inefficiently used. The defect with the latter is that the psychologist is not employed in those circumstances where a psychological appraisal could provide pertinent or even essential data to the patient workup.

A truism, which is sometimes forgotten, should perhaps be stated initially: the psychological consultation is no "sacred cow." There is much that it cannot do. Moreover, it is only as valuable or effective as the psychologist doing the workup. The data as such do not provide answers; they have to be interpreted and integrated by the psychologist. To complicate matters further, the psychologist's statements about the person he is evaluating are of varying degrees of certainty or levels of inference away from the data. For example, a question concerning present intellectual functioning lends itself to verification more easily than does a question concerning intellectual potential, which, in turn, is more easily answered than questions concerning psychological dynamics. In the latter case, a clear and systematic theoretical knowledge is required to differentiate among varying inferences gleaned from the protocols and to integrate them into a psychologically relevant, accurate, and useful whole.

Our intention is to indicate those areas in which a psychological consultation can offer service. These may be broadly stated as comprising (a) the patient's intellectual functioning and (b) his personality structure and psychological dynamics.[2]

INTELLECTUAL FUNCTIONING

With regard to this area, the tests given tap an individual's capacity to perform certain cognitive functions. Two major factors determine the individual's ability to perform these functions; his age and his innate endowment. The measure of intelligence is the extent to which the individual can perform certain functions as compared with the performance of his age mates. From his performance, inferences as to innate intellectual endowment are derived. The intelligence quotient then, is itself an empirical measurement based on normative data. It, alone, tells no more about the

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[2] At the same time we realize the artificial nature of this breakdown and that intelligence is, properly speaking, a facet of personality.

individual than his relative standing at that moment with respect to his peers in performing certain tasks and answering certain questions which are considered to reflect different cognitive abilities. This does not mean that a qualitative examination of his responses is unfruitful; on the contrary the individual's style, his idiosyncratic ways of responding, the gaps in his performance, the relative impairment of, or superiority in, certain functions, all, in themselves have diagnostic significance. More concretely, two individuals of the same age may obtain identical scores on an intelligence test but possess quite different intellectual abilities and potentials.

There is, as well, especially in children, considerable variability in any individual's intellectual functioning which makes a rigid reliance upon the I.Q. untenable. It must be remembered that the patient can do at least as well as his performance on the intelligence tests indicates. How much better he might do if his physical state (e.g. illness, fatigue or effects of drugs) or psychic state (e.g. anxiety or lack of motivation) were altered has to be inferred. However, despite these various sources of error, the range of the individual's intellectual capacity can be estimated with reasonable confidence.

It might be well to list here some of the cognitive functions considered to be important aspects of the broader concept of intelligence. This list is not meant to be all inclusive but rather to be a guide to the kind of functions which are generally considered to reflect intelligence. These would include 1. General abstracting abilities, such as symbolizing, and perceiving logical relationships, the ability to discriminate between essential and superficial elements, differentiating and integrating capacities, and conceptual skills; 2. Social and environmental awareness, such as accurate evaluation of and sensitivity to everyday situations; 3. The ability to learn, as reflected by associative skills, the depth and breadth of old knowledge, and the capacity to acquire new knowledge; 4. Perceptual motor abilities, that is, the capacity to coordinate and integrate successfully sensory and motor activity; and 5. Mental alertness, attention and concentration.

While theoretically all of the above information is available, in the usual hospital or clinic setting, a general request for that information is not ordinarily made unless a specific need would be served.

The following are instances in which a psychological consultation for the appraisal of intellectual functioning might be appropriate:

1. For making a differential diagnosis, *e.g.*, for legally declaring a patient a mental defective.

2. For making a disposition of a case, *e.g.*, whether a patient has the intellectual capacity to utilize certain types of psychotherapy.

3. For evaluating the relationship between a patient's current functioning to his potential abilities, *e.g.*, when a person failing in school is felt to have the capacity to perform more adequately.

4. When there is a question of disturbed thought processes, *e.g.*, when schizophrenia is suspected.

5. For evaluating impairment of, or deterioration in, ability to perform cognitive functions, *e.g.*, when organic involvement is suspected.[3]

It should be stressed that in only the first of these, and sometimes in the third, is a formal measure of intelligence absolutely essential. A reasonably good estimate of the level of an individual's intelligence may be obtained from an analysis of his performance on many projective tests. These estimates are often sufficient unless for some reason a more precise appraisal of current intellectual functioning is required. Therefore, the fact that an appraisal of intellectual functioning would be appropriate under all of the foregoing conditions does not imply that the measure of intellectual functioning will necessarily be an "intelligence test."

A psychological consultation for the appraisal of intellectual functioning is inappropriate under the following circumstances:

1. When it would be of merely academic interest, *e.g.*, the fact that a patient is being

[3] Testing here can neither confirm nor rule out a diagnosis of organicity. It can only indicate that certain functions are impaired and that this impairment is consistent with this diagnosis.

presented at a case conference is not, in itself, a sufficient reason for his being tested.[4]

2. When there is low level functioning and no suspicion of higher intellectual potential.

3. When there is superior intellectual functioning (unless the extent of his superiority would significantly determine disposition).

PERSONALITY STRUCTURE AND DYNAMICS

While extensive inferences concerning an individual's personality are possible through the use of appropriate psychological tests, it should be re-noted that these tests are never infallible; that the inferences they generate are of varying levels of probability, are a function of the psychologist's acumen, and that their validity is limited by the incompleteness of our current knowledge of the determinants of human behavior. Given those limitations, the following information concerning personality functioning is potentially available through psychological testing. Structural aspects of the personality including the relative strength, flexibility, and efficiency of the individual's ego and the modes of control and expression of his underlying drives and impulses can usually be inferred. These would include the adequacy of reality testing, the specific adaptive or defensive mechanisms characteristically employed, the hierarchy or order in which they appear under conditions of frustration, stress, or conflict, and the degree of anxiety present. In addition, it is possible to evaluat the quality (*e.g.*, lability or over-control, etc.) and the extent (*e.g.*, strength of drive) of the individual's emotional responses, the general level of maturity, and the levels of development at which primary motives are fixated or to which regression has occurred.

As well as portraying the structure or framework of personality and assessing the adequacy of its current functioning, it is possible to gain insight into a number of specific factors which fill in the details. These would include specific conflicts, their intensity and the attempts at resolution, *e.g.*, unresolved oedipal strivings; the character of the individual's interpersonal relationships, his perceptions and the way he views women; and psychological factors in development determining his present condition, *e.g.*, the nature of his perceptions of early relationships with significant figures.

While the foregoing are general statements concerning what the psychological consultation may provide, in practice, more specific information concerning the patient is usually requested. A request for a psychological evaluation of personality functioning would be appropriate under the following circumstances:

1. For evaluating possible underlying pathology, *e.g.*, the suspicion of what appears to be neurotic symptomatology masking a schizophrenic process.

2. For evaluating the relative strength of different pathological trends in a patient, *e.g.*, whether a depression observed clinically is primary or incidental to other pathology also present clinically.

3. For obtaining information about a patient which may be unobtainable through interview, *e.g.*, the "hyper-repressive" patient.

4. For investigating the etiology of a symptom, *e.g.*, the meaning of a conversion reaction.

5. For evaluating the advisability of initiating, continuing, or terminating hospitalization, *e.g.*, when there is a question concerning the possibility of further decompensation.

6. For planning a psychotherapeutic approach, *e.g.*, for deciding between supportive or interpretive therapy, *e.g.*, by alerting the therapist to the forms of resistance and defense likely to be employed.

7. For an evaluation of change as a result of the therapeutic process.

The psychodiagnostic evaluation of personality functioning is limited when it attempts to predict specific behavior. While the psychological appraisal may suggest the potential for classes of behavior under specified conditions, as with other methods

[4] This is not meant to deny the importance of the psychological examination as a teaching or didactic measure. In many instances psychological examination is an intrinsic part of the institution's teaching program. If evaluation of intellectual functioning is important from a learning point of view, then this, in itself, would justify the referral.

of assessment, it is unable to provide precise information concerning the future. Therefore, predictions concerning future choice of symptoms or specific behavioral acts, can only be answered qualifiedly.

A further qualification concerning the psychological evaluation should be indicated. While all of the information suggested above is potentially available through the psychological consultation, not every protocol is rich enough to provide this information. The very constricted patient, for example, may only show the nature of his first line defenses and we may be unable to evaluate adequately either the depth of his pathology, or the genetics of his symptom pattern or character structure. Therefore, the fact that an extremely wide range of information is potentially present in the psychological protocol must be qualified by the variability among individuals in the nature of the protocols they produce.

IMPLICATIONS FOR REFERRAL

We have enumerated and discussed the kinds of information which the psychological report may provide in the evaluation of intelligence and personality. While there are instances in which a referral source will wish as complete an evaluation as possible, a psychological report detailing all of the material available would be extremely time consuming and much of the information it contains would often be irrelevant or superfluous. The usual referral for psychological testing should clearly specify exactly what questions or problems prompted the referral and what the referral source hopes to obtain from the consultation. The real value of the psychologist's report will lie in the emphasis which is placed on answering the specific referral questions. More specifically, frequently the question involves a problem of differential diagnosis. This would, ideally, also include information pinpointing the diagnostic alternatives, and those areas of ambiguity which make the diagnosis difficult.

Perhaps it should also be emphasized that the psychodiagnostic referral in the hospital or clinic setting while of value in all of the above situations, should be utilized with regard to the availability of the psychology staff to perform these functions. Often under situations of inadequate staff it is necessary to limit the consultation to the more urgent of diagnostic and disposition problems. The more comprehensive and informative the consultation request, the better able is the psychologist to determine the priority with which each case should be dealt.

A further consideration of major importance concerns a need for continuing communication between the referral source and the psychologist. All too frequently after the psychologist evaluates a patient, there is no feed-back of information regarding the ultimate findings in the case. Refinement of the psychologist's skills, further knowledge of his instruments, and more adequate theoretical formulations require data concerning the adequacy of his evaluations. The psychologist, as well, may have at his disposal further information not included in the report which could aid the referral source in the solution of ongoing problems with the patient. This interchange, it is felt, facilitates the growth and development of the respective professions around the framework of service to the patient.

SUMMARY

We have attempted to point out both the unique values and the limitations of the psychological appraisal; the functions of intelligence and personality tests, the areas in which they are appropriate and inappropriate; and finally the importance of continuing interchange of information between the referral source and the psychologist.

THE EVALUATION AND TESTING OF PSYCHOPHARMACEUTIC DRUGS

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INTRODUCTION

The study of mood-changing drugs and their effect on the human, embraces, in its complexity, all that is known about man—in health and sickness, as an individual, a species, and a social being. He is not a preparation suspended in isotonic saline that awaits the careful variation of a single determinant, and then responds in simple fashion to drugs introduced into the system. A group of chronic mental patients from a relatively isolated ward with little professional supervision who are brought to a research ward staffed by interested, enthusiastic and hopeful investigators and given a mood-changing drug, will be influenced by many factors in addition to the specific pharmacodynamic effects of the medication.

The purpose of this paper is to review some of the non-pharmacological determinants of drug action, to describe the experiment, and to indicate some of the difficulties in trial of the newer drugs that await the investigator in psychiatric treatment.

THE HISTORIC PERSPECTIVE

The present search for a chemotherapeutic agent which might help severe mental disorders has not arisen *de novo*, but has had a long history(1, 2). Three aspects of this history are of interest: 1. The division of thought into organic and dynamic philosophies; 2. The recognition that drug effects may be dependent on more than chemical properties alone; and 3. Past experiences with other drugs.

The concept that drugs may modify mental disorders is an outgrowth of the conviction that there is a physical basis of mind; that mind is a product of the organ, brain. For the organicist ". . . restoration of the nerve cell . . . is the *sine qua non* of recovery"(3).

A severe mental disorder such as schizophrenia may be seen from the organicist's point of view as a product of chemical interference with the brain's normal function(4). The dynamically oriented psychiatrist, however, sees the patient's illness as the product of a personal history of interactions with significant people and objects. To the 'dynamicist,' recovery in a patient, in its simplest terms may occur by ". . . keeping the patient busy and in friendly contact with people"(5).

The extent to which the drug researcher identifies or agrees with either point of view can make the difference between an optimistic, enthusiastic worker or a cautious, pessimistic one. He may tend to ignore the dynamics of the experimental situation or to devaluate or deny any drug effectiveness. His very attitude may influence the outcome of the experiment.

The recognition that mood-changing drugs act in complex ways arose out of findings that were contrary to classic textbook descriptions of drug action(6-8). The analgesic effect of morphine was found to be improved by an informal, friendly attitude towards the subject(9), cocaine and hasheesh did not always produce euphoria (10), amphetamine might be pleasant to one person and unpleasant to another(11). A great distinction was made between the primary, physiological drug action and the secondary or subjective response to the drug(3, 12-21). These investigators brought awareness into some of the non-pharmacological problems involved in drug experimentation with man.

There is still another way in which the historic perspective can influence the outcome of research. A knowledge of previous work can alert the researcher to difficulties and dangers. He may be sobered by the fact that Kraepelin and Nissl used intoxicating drugs to produce artificial psychoses(10); that in 1937 there was enthusiasm for a combination of caffeine sodium-benzoate and sodium amytal which, it was hoped, would assist the physician to use psychotherapy effectively and profitably(22), that in 1934 a reassuring paper

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appeared on "The Alleged Dangers of the Barbiturates"(23), while in 1948 twenty-five percent of poisoning admissions were due to acute barbiturate intoxication which ranked first in causes in death from poisoning(24). It would not be surprising to find the following excerpt in the most current journal:

> The chronic, disturbed, untidy classes constitute a large percentage of cases treated . . . those who were the most difficult to care for, who had failed to respond to other forms of therapy. Patients showing marked habit deterioration such as soiling, wetting, and destructiveness, became more cleanly, less destructive and better able to care for themselves . . . (there is) the conservation of energy of the nurses and other employees, which can consequently be directed into productive fields of activity(25).

This was written in 1925; the drug was sodium bromide.

THE PHARMACOLOGY OF SETTINGS AND ATTITUDES

The object of study is never the isolated man, but man in an environment. Although much testing has been done on an outpatient basis, the hospital setting is the usual one—with nurses, attendants, doctors, and other patients, all who act in a 'mood-changing manner.' He may be well and a volunteer, or ill and without freedom to choose. In a hospital he lives in a society which is different from that in which he originated; his presence in the mental hospital indicates an inability to function in the larger society. He is a member of a social class which influences the type of treatment he receives(26-27); he may be on an overcrowded ward staffed by attendants, or in a small psychoanalytic hospital ward where the nurses are in analysis(28). To better understand the pharmacodynamic effects of these drugs it is necessary to explore the role that such other determinants as hospital, social class, staff, and other patients play in the dynamics of the test subject. The action of the drug is never a simple function of either the chemistry of the drug or its dosage(21).

THE HOSPITAL

The mental hospital, whether it operates as a therapeutic community(29) or as a state poor farm(3), is a miniature society with its own needs and services. The entering patient loses civil and economic rights and must conform to certain rules(31, 32). After the admission examination, he is sent to wards that have established traditions which may vastly influence the natural course of his illness by the kind of treatment he is given. His initial placement may resemble its counterpart in Dante's Inferno(33).

The hospital, however, can be effective, even in the absence of active therapeutic measures, as seen at Boston Psychopathic Hospital where patients sent from other hospitals to be evaluated for lobotomy improved ". . . apparently because adequate support, confidence and friendliness were supplied by the staff"(34). The ideal hospital is the 'therapeutic hospital,' in which freedom is limited judiciously without repetition of the old traumatic authoritarianism(28, 35). But the hospital has needs, too, which are a "limiting set of facts necessary for survival"(36). This has sometimes meant restraint of unruly, destructive patients by mechanical or chemical means, budgetary worries, and accession to community demands at the expense of the best possible patient care.

The growth of mental hospitals from the small moral community before 1850, to the large custodial state hospital, which in 1950 employed less than 16% of certified psychiatrists(30), has sometimes meant less therapeutic effectiveness. In many hospitals ". . . there is reason for the suspicion that the hospital itself destroys much of the effectiveness of the small number of professionals there"(34).

The hospital—the matrix of the setting in which drug experimentation occurs—can thus help or hinder a patient's progress and modify the results of established or experimental therapy.

ATTENDANTS AND NURSES

Patient care, for the most part, is in the hands of 80,000 to 90,000 attendants, who are the largest staff group to come in contact with the patient. Only a small percentage of these are trained nurses. In their social interactions, they are intermediaries between the doctor and the patient, and

act to meet the needs of the patient. Where hospital populations are large, the non-professional attendant operates largely on his own initiative and evolves his own culture with oral traditions, justifications, and defenses(37-41). He is in charge of the patients' "other twenty-three hours" (32), and often judges them by their ability to perform ward routine and make his work easier. This is one of the realities of wards where disturbed patients are unwelcome because of control difficulties. The 'good' patient may be rewarded by privileges and the 'bad' or uncooperative patient by loss of privileges, physical abuse, or by threat of somatic therapy(34).

A close relationship between an attendant and a patient may be of immense therapeutic value and enhance the effectiveness of any medication, including placebos. When attendant groups are poorly supervised and are mainly concerned with keeping orderly wards, drugs may be welcomed for their control uses just as ECT may sometimes be used(30).

The attendant, as custodian, will reflect the enthusiasm of hospital administrators for these drugs as alternatives to shock and lobotomy, and may reflect a willingness to use large doses in test situations and treatment despite side effects. This becomes an important factor in the design and results of experimentation. The ultimate danger is that "when interest lags, when procedures become routine and monotonous then the restrictive and punitive aspects of such 'therapies' begin, and the gulf widens between patients and personnel"(34).

PATIENT SOCIETY AND VALUES

An important part of the hospital experience of the individual patient is the patient society, where attitudes toward the self are formed through pressures communicated out of the expectation of fellow patients(37). He may get cues from his fellows which will ease the course of hospitalization, be told which attendants to avoid, and how to act before case reviewing boards(39). Other patients may encourage recognition of the realities of the hospital situation, point out one another's symptoms, offer interpretations, and show concern for one another. Great friendships can develop, even on the most deteriorated wards, where patients can become nonchallenging love objects. Kinship and social mobility are often found and expressed in the mental hospital(30).

A patient may go from a closed to an open or a research ward, with a consequent increase in self-esteem(40), and recognition of the interest and devotion that accompanies research. In one experimental situation there was over-all improvement in 30 non-participating patients who, incidentally, objected to being excluded from the injections(42).

The patient's society, by being therapeutic, can obscure the true drug action on groups. A contagion of optimism may infect the experimental group with a feeling that something is being done for them. The patients come to the experiment with the conviction that 'pills and shots' can cure them; this idea is shared in part by the researcher.

The whole aspect of the pharmacodynamic effect of attitudes and situations was pointed out recently in a study of patients transferred to a research ward who were given no medication for 7 months in the hope that a base line of non-drug specific improvement would be reached. Thirty-nine of the 48 patients showed considerable improvement. Even after 28 weeks the investigators had no reason to feel that a plateau had been reached(12). This work demonstrated that 'moral treatment' of mental illness is surprisingly successful, and that much work done on drug evaluation has to be seen in the light of understanding the therapeutic aspects of the setting.

THE DOCTOR

The attitudes of the physician who designs and conducts the experiment can play an important role in the outcome of a drug evaluation. Drug research should be conducted in an entirely impartial manner, in order to eliminate the bias of the experimenter. However, the difficulties are illustrated by a study of drug effects in a general hospital where the investigators were ". . . struck by the extent of the contrasting attitudes and findings of our own

staff and those of others reporting on the new drugs . . . for many people on our staff there is a distasteful aspect to the utilization of somatotherapy . . . (this) affects the drug response"(43). This group found the drugs far less effective than other investigators who used the same drugs and dosage levels.

Reactions to somatic therapies, including chemotherapy, may be an outgrowth of unconscious determinants in the personality of the physician. Where clinical pictures are clear cut and certain treatment methods accepted, fewer factors enter into the choice of therapy. However, where diagnosis and treatment are in a state of flux, as in psychiatry, unconscious motivational forces have more free play, and may be a factor—sometimes a decisive one—in the determination to use a particular treatment method(44-46).

Two treatment methods in which some of these factors have been delineated are ECT and insulin coma(43, 47). ECT may give the therapist a feeling of power over the life and death of the patient(47), while insulin coma can create a patient who is helpless, dependent, and requires the attendant's constant attention(43). The doctor may feel that the secondary effects of threat or dependence are the primary therapeutic agents(43). The problem of how the doctor feels about the primary drug action will often be met in the evaluation of drug action. Some will 'welcome' lethargy, others will not.

Agitation, the very object of drug therapy, may be influenced by the interactions between doctors. When staff members disagree about a patient's therapy, covertly or overtly, severe pathologic excitement, motor overactivity, aggression and dissociation can occur. These can terminate rapidly with any change in the social field of the patient which interrupts his direct contact with one of the two disagreeing authorities (49, 50).

The use of a drug can affect the nature of the doctor-patient relationship. In a study of two groups of therapists dealing with schizophrenics, it was observed that success was associated with the active personal participation of the therapist with the patient. When insulin coma was introduced, it was found that both groups became more active in their relationship with the patient with better therapeutic results. This effect was quite independent of the physiologic action of insulin, and was related to some response on the part of the therapist(48).

EVALUATION AND CONTROL

The problem of improvement strikes at the very core of psychiatric technic and, even in the limited field of treatment by medication, it has many meanings. It may mean that the natural history of the mental disorder has been altered beneficially, the patient's objective behavior is less disorderly, certain objective signs of illness are decreased, or that the patient feels better. A drug that makes a patient malleable may be a 'good' drug to the attendant, who sees that it makes his work easier, or a 'bad' drug to a therapist who sees interference with his therapy. The drug effects may be seen as beneficial by the administrator who has budgetary savings(64), or by the doctor who feels he *must* treat patients(65).

Because ideas of improvement vary so widely in a field where one assesses total personality in a complex and ever-changing matrix, it is not surprising to find many methods of evaluating patient response to therapy(51-63). In general, objective responses are measured in terms of performance or appearance, and subjective responses with the use of questionnaires and interviews. A descriptive statement about patient response to therapy allows the reader to draw his own conclusions about its efficacy. However, most reports of clinical trials of drug therapies are given in terms of percentage improvement—a concept which carries with it the value system of the observer, and is not often made explicit in the report.

Patient evaluation of drug response also varies widely. For him there are always two aspects to medication: 1. The primary action, e.g., sedation or stimulation; and 2. His own response to these states. Where therapy goals are those of change in mood, the secondary drug effects become very important and may be profound modifiers of the intended action of the drug.

In one study of the effects of ampheta-

mine, morphine and heroin on college students and addicts(11) the subjects were asked to evaluate the mood changes produced by the drugs. While the primary effects of stimulation or depression were constant in both groups, the students reported a marked euphoria and liking for amphetamine because it enhanced their ability to concentrate, study, and lose inhibitions. The addicts disliked it because it made them feel 'jumpy' but they liked the 'peaceful state of mind' given by the opiates that made the students feel 'dull and out of contact.' The same variable response was noted in a single drug group, the barbiturates(13). This phenomenon is being observed in patients using tranquilizers in an outpatient setting, who complain of apathy, somnolence, and a lowering of the *élan vital*(66). In a hospital setting this very effect might be rated as improvement.

Physicians vary also in their response to the same changes in patients and alter their evaluations accordingly. Some feel that tranquility may be a disaster for the individual patient(43), or that the use of drugs fortify the fiction that we have to use miracle drugs in order to become free-acting agents(67), or that cooperative behavior may be a deterioration(28). These attitudes are communicated verbally and non-verbally to staff and patient groups, tend to devaluate drug experiments, and may even determine dosages used(43). Those who are more enthusiastic about drug therapy will then say that poor clinical responses are due to inadequate trials of therapy rather than to the drug.

We are hampered in attempts to evaluate drug effects in terms of the culmination of clinical improvement, recovery, and discharge. Recovery rates, like the natural course of mental diseases, are poorly defined. The rates may be as high as 72% for general practitioners(70), to 60 to 80% for treatment centers and psychoanalytic institutes(71-74). Fluctuations in ward and hospital census may reflect many causes other than introduction of drug therapy.

A final difficulty arises in the control measures which are instituted in order to reduce misleading effects. These are usually of two kinds: the volunteer, and the placebo. The volunteer is assumed to represent the normal or base-line, from whom comparisons may be made, and may be a member of a group with its own unique personality characteristics which make it far from normal. Any large research hospital has its professional volunteers who exchange services for money or hospitalization, and any college campus has its students who are willing to participate in experimentation for widely varying motivations. A study of one volunteer student group found psychopaths, psychotics, alcoholics, homosexuals, and psychoneurotics making up one-half of the group(75). Thus, an evaluation of normal responses may be as complex as the evaluation in the most severely ill inpatients.

The most important control measure, the placebo, is also not without its difficulties. It would seem a simple matter to isolate drug effects when given in the same dosage, form, and amount, in a 'double-blind' fashion with neither evaluator nor patient telling the medicines apart, alternating with active medication in the same patient(76-80). However, by definition a placebo must be chemically and physiologically inert, while drugs currently under study have many side effects. Used in effective dose levels, the active medication presents autonomic side effects in the patient which are apparent to him and communicated to his fellow patients and staff. The patients and ward personnel are often alerted to these side effects; this causes serious doubt about the efficacy of the 'double-blind' study. Placebo effect has its own range of efficacy, and populations can be divided into placebo-reactors who will or will not give a desired response. The presence of a large number of placebo-reactors in a control sample will make the difference between the control group and the experimental group responses less striking, while a small number may make a drug look better. Despite this important factor, most experimental groups are not separated or equalized prior to the institution of active drug therapy, and can cause a change in the dose-response curve, the discarding of effective drugs, or the under-rating of optimal doses.

Comment

The current work on the chemotherapy

of mental disease by newer agents is unique in the history of psychiatry because the professional and public enthusiasm is so widespread. The lay press, and the professional journals give the impression that paradise is just a stroke away. The enthusiasm generated is a measure not only of the efficacy of the drugs, but also of the immensity of their need. Statisticians who compile reports of hospital censuses provide a constant stimulus towards the search for measures that will reduce the personal and public burden of acute and chronic mental illness. Out of the general excitement, however, has come genuine interest and research funds to aid in the exploration for additional therapies.

In our enthusiasm we must not lose sight of the difficulties in the experimental situation. To test mood-changing drugs is not a simple matter. One must be constantly aware of all the other mood-changing events in the lives of the patients. Complacency about controls, indifferent selection of patients, disregard for the effects of settings and attitudes can cause false evaluations of medications and may prevent good drugs from getting widespread use or promote drugs whose usefulness is more limited than the data indicate. The problems of the researcher are great and involve many factors—some poorly understood, others not yet suspected. This does not mean that we should adopt a nihilistic attitude towards research in mood-changing drugs. The wealth of material already available in the fields of chemistry, pharmacology, sociology and psychiatry should be used to more clearly define the goals and limitations of experimentation. As one reads the current literature one gains the conviction that more thought given to research, methodology and experimental design would serve as a useful antidote against the later misuse of many drugs. This is a time of great expectancy in the field of psychiatry. There have been other times of expectancy, and many moments of disillusion; careful work now is of the greatest importance.

Summary

There is a great current interest in the evaluation and use of psychopharmaceutical agents in the investigation and treatment of mental illness. Clinical investigation of these drugs is made difficult by a number of non-pharmacological factors which can influence the mood and mental status of an individual. The role of the hospital, the patient society, doctor and attendant have been reviewed in order to illustrate their effect on a patient who has become a part of a drug study.

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STUDIES ON MESCALINE VIII: PSYCHODYNAMIC OBSERVATIONS [1]

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Dissatisfaction with efforts to codify abnormal human behavior as either "psychologically" or "organically" determined has led to development of a psychophysiological frame of reference. Since the sum total of man's behavior is represented by the interaction of internal and external forces, it is impossible to consider one without the other. The use of drugs as a vector for such investigations has the advantage of measurable reference points that are subject to confirmation, criticism, or denial by others.

This report concerns psychodynamic observations in the mescaline-induced state made during the past 5 years in 203 trials with 124 male and female acute and chronic patients at Manhattan State Hospital. They were selected at random from the admission service without prior knowledge of their diagnosis or underlying psychodynamics. The technique and general methodology have been described elsewhere(1-4). While descriptive observations of this state have yielded much valuable information concerning psychopathology of neuroses and psychoses, other more important aspects of the problem have escaped study. The dynamics of free association, symbolic expression and symptom formation can be observed. The problem of anxiety lends itself particularly to study with mescaline.

The experimental investigation of human behavior is fraught with many difficulties which lie in the nature of the problem itself. The differences, however remote between patients, each with his own genetic, anatomical and cultural background, require an experimental base that must be clearly defined. The action of the same drug with individuals from various cultures may yield different results. Culture can quantitatively modify psychotic content (5).

Perhaps more formidable is the problem of the investigator. Each brings to the experimental situation a group of factors which can be considered as motivation. Conscious and unconscious drives constantly influence the experimental setting. While investigators make persistent efforts to be scientifically objective (*i.e.*—double-blind studies), it is indeed strange that some almost always report negative results, while the findings of others are consistently positive. Marked dependency needs may be rationalized in the service of independence and demands for freedom. Scientific necessity will be considered as analagous to parental control and be met with rebellion ("I don't need these double-blind studies"). Although scientific accuracy should always be sought for, compulsive strivings and obsessive preoccupations ought not be rationalized nor externalized as the result of neurotic needs for inner control. Devotion to statistics can only be considered in their relationship to the structure and function of the experiment. One may ask then, whether continuous preoccupation with specific aspects of scientific experiments are nothing more than reflections of inner conflict? The nuances inherent in reporting observations and their relative importance have just as interesting unconscious determinants as do a patient's symptoms. One may wonder what factors underly the selection of any particular problems for elaboration and further study out of a large body of data accumulated during an investigation. It is important to know the deeper influences motivating one individual to report the action of a drug in 10 patients after a 2-month study, while another requires a statistically significant number of patients, studied over a long period, in a controlled environment, with mathematical analyses of each section of the report.

The investigator must at all times be aware of three things as he sits in the treatment room :—the patient, the room's

[1] Read at the Western Divisional Meeting of the American Psychiatric Association, Nov. 22, 1957.

[2] Manhattan State Hospital, Ward's Island, New York 35, and College of Physicians and Surgeons, Columbia University, New York.

contents and, above all, himself. Why does he ask this or that question? Does repetition of a question mean something experimentally, or is this an unconscious mechanism to secure a vicarious answer to his own problems? Does he become impatient in the course of the study and, if so, why? Are his attitudes constant from patient to patient and, if not, why not? If a patient suddenly changes position, does he move his chair further away or perhaps behind the desk? If his attitudes are shifting, what is the cause? While the experiment is attempting to secure data from the patient about the patient, it is also securing information about the investigator. We must be concerned with this matter for the countertransference should first be analyzed before the patient data become meaningful in their own right. Otherwise, two individuals studying the same patient with the same drug will report different results. This entire question will be elaborated elsewhere in greater detail.

In studying human behavior experimentally, we work with 3 variables making up a triangle—the patient, the investigator and the environment. Much attention has been paid recently to the environmental setting. There are even those who hold that results achieved with the newer psychopharmacologic agents are nothing more than factors of increased attention given to patients(6). The environment has hitherto been considered a static object with immobility and fixation as its chief attributes. Under the impact of a drug (mescaline), this whole set changes. Everything that is outside becomes a dynamic part of that which is inside. The individual now perceives "without" in terms of what is "within," and what is within in terms of what is without. The drug activates long forgotten neuronal circuits which are cued by the surroundings; a wall changes color; this produces an association recalling a conflict which has been kept out of awareness.

The clinical state induced by mescaline has been described as either an intoxication, a neurosis or a psychosis. Actually, it is neither one nor the other nor the third. It is a state of being in which the clinical spectrum ranges from sleep to murderous rage and from normalcy to thoroughly disorganized mental states. This wide sweep and lack of specificity in the mescaline-induced state does not really allow its designation by any single descriptive word —neurosis, psychosis or other. While the drug does in fact frequently produce a condition indistinguishable from acute schizophrenia, it can also lead to states of tranquility. Previous authors have very accurately described the clinical phenomena following mescaline, but have failed to realize the wealth of hidden material to be uncovered by the free associations.

The ingestion of mescaline with its attendant phenomena may be considered an experience similar to others. It is an error to view this as an intoxication, or in a purely descriptive frame of reference. The manner in which the drug is presented to the patient is significant, for each individual handles it differently. Those with highly intellectualized defenses will want to know all about the action of the drug, its pharmacology, side effects, etc. While under its influence they will report if they feel palpitations, or see colors, etc., without associating freely. Passive dependent patients accepted the injection without question and lay still in bed for most of the hour. While the pre-study psychopathological state may very well have influenced the result, we did not test this aspect of the problem. We purposely conveyed no information to the patient concerning the drug, the possible reactions, or unpleasant effects during the experimental phase of the study.

An external threat to the organism's inner economy was met by a riddance mechanism—the desire to urinate, defecate or expectorate. This took place almost immediately after the injection began, before it was terminated, and before any real psychologic response had taken place. This reaction would seem to indicate that "flight" occurs before "fight," is unconscious and may even be instinctive. Flight is the more primitive of the two reactions, with fight being only a later, possibly cortical addition. The feeling expressed at this time by the patient was probably in conformance with his character structure, although we could not really study this aspect of the problem. Within 5 or 10 minutes following the injection, the patient showed certain

physiologic changes: pupillary dilatation; acceleration of pulse; subjective changes in temperature with cold, clammy, or flushed skin. This was not always objectively what the patient stated it to be. Concomitantly the patient reported a feeling of anxiety, which at the onset was minute or terrorizing. The quantitative response could not be predicted. We have not observed fear as such. The anxiety began to increase for the next 20 to 30 minutes accompanied by much agitation, restlessness, feelings of aggression, hostility, suspicion, and at times panic. This reached its maximum about one-half hour after the injection; at which time the anxiety become intolerable.

Now the patient either (a) developed symptoms, (b) became destructive and showed different degrees of psychomotor agitation with outward aggressive, combative feelings or self-destructive tendencies, or (c) showed an acute withdrawal with mutism.

A condensation of the major conflicts underlying the psychosis was observed in the second half-hour, either verbalized, acted out, or portrayed symbolically. One patient relived a traumatic sexual incident in symbolic fashion, "I can't take this anymore. I can't breathe. I'm getting sick. I feel like I'm choking." (Did you ever say that before?) "Yes, to Laurie at the apartment, and he slapped me." Another symbolically expressed his hatred and death wishes to his wife and son, as well as his own guilt feelings. He described an 80-mile-an-hour car ride that ended in a ditch. An extraordinary emotional discharge accompanied the symbolic destruction of his wife, his son and himself. Afterwards he said, "I feel purified."

The entire mescaline experience takes place with anxiety as the matrix. This feeling drives the individual, and it would seem that anxiety is momentarily the motor of psychic life. The feeling is intolerable and must be contained through all available measures. In the experimental setting, one is struck by the fact that a solution of anxiety is represented by destruction of either the object that has incurred it, or the self that has experienced it. "Rather be dead than go through that again." Symptoms are, therefore, of a life saving nature.

The recall of memory takes place on a physiologic base, still poorly or not at all understood. With intense and unbearable anxiety as a fulcrum, peripheral stimuli assume meaning in conformance with past experiences. The actual moment is seen in the light of the past, present and future. Each event in life could be interpreted as a function of this triad. Feelings and thoughts may be precipitated by external or internal events. The thirst of the desert traveller gives rise to a mirage. The sight of the supposed watering place temporarily allays anxiety induced by the physiologic thirst. There is a recrudescence of symptoms once the illusion becomes apparent. The changing nature of the periphery may possibly influence the unconscious. The need for afferent stimuli to maintain central nervous system equilibrium has been shown by the isolation experiments of Azima(7), and Lilly(8). We are at present testing this concept by studying the mescaline-induced state under a variety of external conditions, such as under EEG control, with the patient blindfolded, in the ward, office or outdoors. The preliminary hypothesis that loss of a peripheral point of reference with blindfolding would lead to a more intense mescaline reaction seems incorrect. However, we have observed that blindfolded patients rarely have visual hallucinations(9).

Although hallucinations or delusions have been considered by some as concrete realistic phenomena(10), these are really mirrors of the unconscious. They reflect very accurately the structure of unconscious conflict, and projection to the environment makes them secondary stimuli. Their structure is fairly specific to each patient, although there is a certain degree of symbolism seen in all patients. The individual now responds to these as well as to realistic objects. Additional anxiety is generated with added symptom formation as they react to both real and projected stimuli. The process continues, assuming the character of a reverberating circuit until interrupted in some way—in our cases with chlorpromazine. Caught in the grip of such an intolerable feeling, from which there is no escape (since the drug action

takes at least 4 hours or longer to dissipate unless blocked), the patient is driven to look at himself again and again—the self he has striven so long to hide. ("I finally see myself as I never did before.")

Consideration of the symptoms induced by mescaline in this sense makes the experience a reparative effort. Symptoms are a method of expressing inner conflict. Analysis of the former through free association may resolve the latter. Illness can then be considered a vicarious way of seeking health. Lacking sufficient ego-strength to cope with the demands of self or reality, some individuals, through probable genetic, anatomical or physiologic defects, choose circuitous routes for problem solving. The word "psychosis" in this framework would merely describe a particular state without reference to diagnosis, prognosis, or treatment. Savage has spoken of the "healthy aspects of psychosis." Mental illness is a generally unstructured response to overwhelming forces not unlike that of leucocytosis. Both require thorough analysis in order to arrive at the etiology. The mysteries surrounding "insanity" merely testify to our own ignorance of the subject. We consider the incoherent patient as insane because we do not comprehend his statements. As we pierce the apparently nonsensical verbiage, we say that the patient is less incoherent. The question then arises, "who does not understand whom ?"

There were three cardinal feelings called forth by mescaline :—1. Hostility-aggression, 2. Sexuality, and 3. The transference. Rinkel, Hyde and Solomon (11) made hostility "the object of a special study" and noted that "strongly affective relationships of affiliative or hostile nature were distorted to a greater proportion than were relationships of impersonal empathic and nutrient character." Azima(7) *et al.*, found that hostile feelings appeared early in their experimental studies. Our patients at times became so aggressive that they menaced the participants in the study ; some patients even attempted suicide during the experimental period. The mere expression of hostility was particularly threatening to the idealized image of the passive, dependent, helpless, clinging patient. Violent outbursts of tears were frequently the symbolic expression of hatred and destructive wishes for an object against whom rebellion and self-expression had been repressed. Some patients were extremely self-critical of their failures and would say, "I never did say that. Why didn't I do it before ? I suppose I was afraid."

The various feelings described by Rinkel *et al.*, in their patients under lysergic acid diethylamide were confirmed here, although we were impressed with efforts to move towards and with. Many patients viewed the physician ambivalently—as the hated parent or as the parent whom he wished to love. These reactions were observed during the study and recorded without interpretation. One can theorize that hostile and aggressive feelings receive strong super-ego condemnation for they are socially reprehensible. Every effort will be made to prevent their expression. Yet, the realities of modern living place a premium on these emotions. If ego strength is lacking, any ambivalent situation is dangerous. Where social taboos are present in addition, the individual may be overwhelmed.

Sexual feelings, from the most obvious to the most bizarre, were often the essential content of the mescaline experience. They were expressed either openly, thinly, or completely disguised. Where sexuality formed the main bridge for human relatedness, the mescaline state merely intensified and aggravated this behavior. Efforts at expressing feelings for the physician took the form of erotic advances by both male and female patients. Erotization of the transference in female patients was not uncommon. Conflict regarding the sexual role in life—maleness versus femaleness—most marked in male patients ; uncertainty regarding the sexual identity, or absolute loss of sexual identity, was frequently seen as the underlying factor of the psychotic breakdown. The more fragmented the sexual identification, the greater was the severity of the illness. One could say that this was nothing more than a mirror of the ego dissolution ; if the ego fragments, all of the parts suffer. We were struck by the very infrequent presence of homosexual conflict in female patients. It may be that

in our culture homosexuality in the male carries a much greater threat of ostracism than for females and is, therefore, more prone to produce inner conflict. Sexual feelings are not always merely a by-product or a part of existence as some have maintained. They are, it would seem from this work, parts of the motivating forces of existence. One cannot at this point debate the issue of the instinctive nature of sex; of the primordial character of the sexual drive; or of its primary or secondary importance in the psychopathology of the neuroses or psychoses. Further work on this question along these lines is certainly indicated.

Our data suggest that anxiety drives the psychic life under mescaline. Where anxiety was absent, the prognostic outlook was poor insofar as the therapeutic action of mescaline was concerned. This was evident in psychotic patients who were either narcotic addicts or alcoholics and those with psychopathic personalities. It is uncertain whether or not this concept can be generalized to include the action of other drugs. Cohen(12) has indicated that anxiety is not always present in patients under the effects of LSD. However, our data were derived from a study of in-hospital psychotic patients. There have been no suggestions in these studies that fear and anxiety are different. May(13) states, "it is agreed by students of anxiety—Freud, Goldstein and Horney, . . . that anxiety is a diffuse apprehension and that the central difference between fear and anxiety is that fear is a reaction to a specific danger, while anxiety is unspecific, 'vague,' 'objectless'." We could plot in our studies the steady rise of an emotion featured physiologically by tachycardia, polypnea, moderate hypertension, mydriasis, decrease or disappearance of alpha activity, and psychologically by a progressively increasing apprehension. The stress agent (mescaline) as well as the setting were always the same. One cannot distinguish fear or anxiety on a physiological basis.

To make a unitary hypothesis from these events, one could say that the organism responds with a feeling of anxiety when its existence is threatened. In a philosophical sense, not only the self and its being are threatened, but all of the values inherent in the individual. All external events can be viewed on the basis of one's total existence. Past reaction patterns are activated continuously in the course of human living. A temporary state of chaos exists if a situation is encountered for which no past pattern has been integrated in the brain. Analagous events are often seen in electrical computers or so-called mechanical brains. Anxiety ensues if there is no previous point of reference to which the threatening event can be compared. I do not believe that anything in life is "unspecific," "vague," or "objectless." Anything is measured against something else; and much of the latter is in a state of unawareness. The disappearance of alpha activity after mescaline suggests the predominance of lower centers at that time. Would this, perhaps, explain why memories suddenly break into awareness under such drugs? Is it the organism's attempt at problem solving under acute stress; by attempts to recall reaction patterns from the past? It is of interest to note the converse. Hill(14) in discussing Barker's work pertaining to environmental influences on the electrical activity of epileptics states, "these discharges may be a sign of processes of protection to the individual's integrity, limiting awareness of the intolerable on the one hand, and limiting motor activity on the other hand." This would suggest a dual unconscious mechanism of expression (mescaline) and repression. These questions also require further study.

I hold that "not knowing" or "lack of specificity" results from the absence of a point of reference with regard to the threatening object. If the sum total of the individual experiences have not permitted him to confront stress with a solution, then the new experience is dangerous. This feeling is total and cannot be subdivided into fear or otherwise. May states, "contradictions in a culture increases anxiety, in that when the individual's goals and values are threatened he cannot orient himself by reference to consistent systems of value within his culture."

The mescaline stress(15) produces much less of a reaction with succeeding experiences. We felt in the past that this might

be due to such vague factors as "tolerance" or absence of any specific emotion-laden material. However, the first mescaline experience becomes a point of reference. It has been integrated as an experience and can serve as a basis for future exposures to the same stress without producing the emotion-laden discharge of the first time. Where the stress can be life destroying, as in battle, this equation does not always hold.

Anxiety in this context is considered a normal phenomenon. It can be viewed as a continuum from one end that is normal through neurotic anxiety, to psychotic anxiety and possibly death. The latter may be the end-point of intolerable anxiety. Anxiety is the underlying dynamic force of creativity and, curiously enough, of destruction. These two are not so distant as May has pointed out, since to create something is to destroy something else.

Tillich(16) speaks of normal anxiety but calls it "existential anxiety." Grinker (17) shows a similar scheme, but calls the initial phases "alerting anxiety." Without anxiety there is inertia, stillness, nothingness. Without this inner driving force, the individual rests quiescent and unproductive.

If anxiety is the fulcrum of psychic life, its pivot is a synthesis of internal and external events. Neurotic and psychotic anxiety represent parts of a continuum. If this concept of anxiety is correct, then by blocking anxiety formation, symptoms should be prevented. This has already been demonstrated experimentally(4).

In this report, still incomplete in places, and still requiring further work, I have indicated some of the results in our studies with mescaline using the psychodynamic approach. A road is now open through the use of drugs to constructively manipulate the driving forces of the free associations. Anxiety is not to be considered as good or bad. It is a potent force that literally drives the patient to health. When lacking, or when it takes 5, 10 or 15 years to develop, the process may possibly be accelerated by the use of pharmacologic agents.

SUMMARY

Psychodynamic observations made during the mescaline-induced state in 124 patients are reviewed. Mescaline produces a "state of being" in which the clinical spectrum can range from sleep to rage and from normalcy to thoroughly disorganized mental states. Anxiety is considered the background upon which the mescaline experience evolves. One may consider the mescaline-induced state under three headings: 1. Hostility-aggression, 2. Sexuality, and 3. The transference. Various recurring symbolic gestures were noted, and many were frequently of a sexual nature.

The primary role of anxiety is reviewed and some theoretical concepts presented. Much further work remains to be done.

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CLINICAL NOTES

IMIPRAMINE : A POTENT NEW ANTI-DEPRESSANT COMPOUND[1]

H. AZIMA, M. D. AND R. H. VISPO, M. D.[2]

Since the advent of phrenotropic substances many drugs have been found to counteract successfully the symptoms of mania, excitation, agitation and sometimes anxiety. However, no satisfactory compound, with an adequate margin of safety and effectiveness, against depressive states has been reported as yet. Searching for such a compound, it was noted that Khun(1) in Switzerland had observed favorable anti-depressant results with an iminodibenzyl derivative (G 22355).

The present note is the report of a preliminary study with this substance.[3]

Imipramine is N-(3'dimethylamino-propyl)-iminodibenzyl hydrochloride. It is structually quite similar to chlorpromazine and is sedative in most of its effects in animals. This drug was administered to 63 patients : 43 females and 20 males, with an average age of 47 years, consisting of 55 depressive (35 psychotic and 20 neurotic) and 8 non-depressed neurotic patients.

The dosage range was between 50 and 200 mg. daily, by mouth, with an average effective dose of 100 mg., administered for an average period of 3 weeks. The drug was discontinued, if no favourable response appeared after this period. All patients were treated either in an open psychiatric unit, or as out-patients, or private patients. The period of follow-up ranges from 3 to 6 months, all patients still receiving the drug. Liver function tests were done twice weekly, white blood count and differential and urine analysis once a week, blood pressure and TPR twice a day. The criteria of improvement consisted of 4 items : symptoms' disappearance (subjective comfort) ; ward management ; ability to go home ; and ability to go to work (social effectiveness). The realization of 4, 3 or 2 of these items was categorized as marked, moderate or slight improvement respectively.

Among 55 depressed patients, 24 (43.6%) showed marked and 22 (40%) moderate improvement, 3 slight and 6 no improvement. Thus the percentage of significantly improved cases was 83.6%.

This impressive recovery rate was noted in many patients with long standing intractable depressive states. Electric shock became necessary only in 5 instances, 3 of whom were chronic character disorders. It was noted that the therapeutic response became manifest occasionally within the first week, but usually during the 2nd week of treatment. It also seemed that Imipramine had a more or less specific effect only on the symptoms of depression ; anxiety not related to this symptom did not appear to be affected. This was evident in all of 8 non-depressed patients, who failed to respond to the drug.

Side effects were minimal, appearing at the onset of therapy, and consisted of vomiting in 2 cases, and increase in agitation, tension, hot flushes and some insomnia in 5 cases. These side effects disappeared with the decrease in dosage. In several cases, not reported here, the addition of chlorpromazine counteracted successfully these side effects. With one patient suffering from chronic eczema and colitis both of these symptoms increased and Imipramine had to be discontinued. The effect of intravenous administration of 25-50 mg. of Imipramine was either nil or that of sedation.

Based upon the above data, it was concluded : 1. That Imipramine was a potent anti-depressant drug, with more or less specific influence on the symptom of de-

[1] Geigy Pharmaceutical's G 22355, (Tofranil).

[2] Allan Memorial Inst., 1025 Pine Avenue West, Montreal, P. Q.

[3] Deep appreciation is acknowledge for kind co-operation of staff members of the Allan Memorial Institute, particularly Drs. Cameron, Cleghorn, Bos and Silver.

pression, indicating the possibility of a specific effect on certain parts of the psychic structure; 2. That if its long term application proved to be as effective as the relatively short span of its usage presented here, it might limit the use of ECT considerably. Until now the discontinuation of Imipramine treatment after 4-8 weeks has resulted within a week in a return of depression, indicating the necessity of long term application.

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PATIENT INDUSTRY AND THE WORKERS' ATTITUDES TOWARDS THEIR JOBS

B. J. BOLIN, PH. D. AND DOROTHY SCOTT[1]

The broader conception of psychiatric treatment includes therapeutic utilization of the hospital patient's everyday activities. In recent years, rising admission rates and shortage of space at public mental hospitals have made urgent the full use of all therapeutic resources.

Patient industry, a traditional and near-universal activity at these hospitals, recently has come under closer scrutiny for its therapeutic potentials. The industrial therapist, who contributes specialized skill towards work as therapy, now may be found among the ancillary therapists at many hospitals.

It may be regarded as established that work is distinctly beneficial for psychiatric patients, but little systematic investigation of the matter has been reported. Accordingly, we conducted a survey involving 148 patient-workers (24% of the working patient population) and the jobs they perform. The subjects, 79 men and 69 women, represented diagnostic categories as follows (percentages): schizophrenia, 60.8; mental deficiency, 16.2; chronic brain syndrome (often epilepsy), 16.2; manic-depressive psychosis, 2.7; involutional psychosis, 2.0; psychopathic personality, psychoneurosis, and paranoid condition, 0.7 each. Diagnoses indicated psychosis in 91.9% of the subjects. The mean age was 47.2 years, with a very wide range: one patient was in the teens, two in the 80's. More than a fourth of the patients were aged 60 years or more.

In response to the questioning, 86.5% of the patients stated they would rather have than not have a hospital work assignment. Only 8.1% said they would rather not work, while 5.4% were undecided. Subjects gave as reasons for preferring to work, in order of frequency: conviction that work is good, people ought to work; relief from boredom; amelioration of distressing mental symptoms. Comments such as these were common: "I'd go crazy without this job"; "This job is my salvation"; "I couldn't endure being idle."

Responding to specific enquiry, 11.4% of the patients reported that they felt they were working beyond their comfortable capacities. (One purpose of this investigation was to discover and relieve such cases.) Eleven patients (6.7%) complained about the physical demands of their jobs, while 10 others reported fatigue without definite reference to physical exertion. Five patients claimed that persons "bothered" them on the job. Only 4 spontaneously complained about receiving no wages.

The fact that 86% of our subjects preferred having a work assignment is impressive—even when one makes allowance for certain selective factors tending to raise the frequency of such preference. This response and our general observation convince us that regular hospital employment is one of the more favored activities among these patients. In seeking explanations for such high regard for work, one recalls the great frequency with which psychosis ravages self-esteem. A patient's ability to do some regular work, however, is continuing evidence to him and to others of his worth. Remarks about the inherent goodness of work suggest that many still hold at least this conventional view of work. The more

[1] Central State Hospital, Lakeland, Ky.

important implication is that work helps to fulfill within the patient an important dynamic need—that of self-approval. Actual, productive work evidently holds for patients certain practical, reality values not always present in other hospital activities.

Apparently, many patients' tolerance for monotony and other normally distasteful job features results from effects of chronic psychosis—dulling of sensitivity, perception, and emotion. Such impairment in working chronic patients may subject them to hazards: signs that normally would tell the patient his comfortable capacity is being exceeded may go unnoticed or unheeded; he may be careless, accident-prone; or he may compliantly accept a job assignment he has good personal reason for declining. Hence the assignment and supervision of chronic patients, especially elderly ones, require particular care.

Patients' statements that their work ameliorates distressing symptoms received some apparent substantiation during a 4-day quarantine that confined to a large ward the 42 working patients with 76 others. This ward, normally fairly quiet, became noisy, fights were numerous, and many workers complained about or otherwise responded to "the voices." The ward supervisor described the disturbance as equal to that prevailing on the "disturbed ward". The job supervisor reported that the working patients were very glad to be back at work at the end of the isolation period.

SUMMARY

This survey of 148 (out of 623) patient-industry jobs and the patients' opinions about working leaves us with these impressions: 1. Work is one of the more favored activities among hospital patients; 2. Regular work raises the self-esteem of numerous patients; 3. A great many chronic patients retain the conviction that work is inherently worthwhile; 4. Work often relieves boredom or ameliorates distressing psychotic symptoms in these patients.

INDUCED DEPRESSIONS: PHARMACOLOGIC EFFECTS[1]

ROBERT L. FAUCETT, M.D.[2]

Observations that record the clinical effects of tranquilizing drugs may add to our psychodynamic and psychoanalytic knowledge and provide important linkages between psychologic inferences about drive-determined behavior and the neurophysiologic events which underlie these needs, drives, or desires.

Studies which control all interpersonal variables when drugs are being used as therapeutic agents in psychiatric syndromes are extremely difficult. The use of drugs in the treatment of other conditions, however, sometimes provides an opportunity to observe directly the development of a psychiatric syndrome and to study the relationship between psychodynamic and neurophysiologic events. Drs. Quetsch(1-3), Achor, Litin and I(4) have recently studied the records of 387 hypertensive patients in an effort to determine whether Rauwolfia medication is a factor in producing depressive reactions, and whether any additional factors might enhance this effect of the drug or make it possible to predict which patients are prone to depression.

Depression developed in 53 (26%) of 202 patients treated with Rauwolfia preparations for an average of 10 months. Fifty-six % of the patients with a history of depression and 23% of those without such a history experienced depression while taking Rauwolfia; the latter group included the 8 patients having severest depressions. In 60% of the patients depression occurred within the first 6 months of treatment, in 28% during the interval from 6 to 12 months, and in only 12% did it occur after 1 year of treatment. Regardless of how long a patient may take Rauwolfia without becoming depressed, he is never to be considered free

[1] Read in full at the 114th Annual Meeting of the American Psychiatric Association, San Francisco, Calif., May 12 to 16, 1958.

[2] Mayo Clinic and Mayo Foundation, Rochester, Minnesota.

from the risk of a depressive reaction as long as medication is continued. These results seem to show that in hypertensive patients, the use of Rauwolfia definitely enhances the likelihood of a depressive reaction.

It has been postulated that persons who have essential hypertension have chronic, unexpressed rage(5) because of an inability to satisfy either their oral demands or their ambitious independent strivings. These persons are prone to depression and need constant replenishment of their *narcissistic supplies.* Any loss or threat of loss to this replenishment may cause an ego regression to a depressive reaction.

Most patients in this group begin to feel anxiety and unrest after the first few doses of the drug, followed by changes in affect state, as indicated by frequent fearful anxiety dreams. Next appear signs of a feeling of depersonalization usually followed by introspection. Once this has occurred the patients make inordinate demands on their environment as if in an effort to redefine themselves. A depressive reaction, clinically indistinguishable from other typical depressions, follows and cessation of medication has no effect.

Rauwolfia apparently has little effect on the cortex. Neurophysiologic and neuropharmacologic data indicate the likelihood that reserpine, the active principle, affects the connections between the thalamic nuclei and the rhinencephalon or visceral brain.

Expressed in clinical psychodynamic terms, persons who are most likely to succumb to depression when taking Rauwolfia seem to suffer from changes in their internal psychodynamic equilibrium. Nightmarish dreams develop which ordinarily symbolize the eruption of hostile destructive impulses conflicted by the intensified need for gratification of *narcissistic* dependent relationships. This shift in equilibrium induces anxiety and vulnerability to events in the interpersonal situation. The drug induces a depressive reaction in these persons who are already prone to depression.

Several patients have shown that once they have recovered from a drug-induced depression, anxiety and feelings of depersonalization will develop regularly and promptly if the drug is administered again. The need for exacting diagnostic technic is indicated when depression is the presenting symptom in order to avoid treatment of a biochemical disorder with psychologic means. Other conditions which alter physiologic states without localizable or perceptible changes in function and known to cause depressive reactions, presumably by the same process, are pancreatic carcinoma, unrecognized Cushing's disease, parathyroid tumors and thyroid disease.

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AN EVALUATION OF THE EFFICACY OF HARMONYL IN PSYCHIATRIC TREATMENT

DAVID A. FREEDMAN, M.D.[1]

INTRODUCTION

Canescene, an alkaloid of Rauwolfia Canescen, was made available in 1957 under the trade-name Harmonyl (Abbott).[2] The present study was undertaken to evaluate its efficacy in the therapy of emotional disturbances. Because of its close chemical and pharmacological affinity

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[2] This study was supported by the Abbott Laboratories, North Chicago, Ill.

to reserpine, it is compared in a "triple blind study" to this drug as well as to a placebo.

PROCEDURE

All patients admitted to the neuropsychiatric outpatient clinic of Touro Infirmary during a 4-month period and for whom the participating physician felt a "tranquilizing drug" was indicated were included. A total of 34 individuals participated. Of these, 30 continued with the experiment long enough to yield usable data. By diagnosis they fell into the following categories (Table 1).

TABLE 1

DIAGNOSTIC CLASSIFICATION OF PATIENTS USED IN PRESENT STUDY

Anxiety reaction	14
Schizophrenic reaction, undiff.	6
Schizophrenic reaction, paranoid	2
Hysterical reaction	5
Involutional reaction	2
Pseudoneurotic	1
Manic-depressive psychosis	1
Agitated depression	3

Medication was ordered with the usual pharmacy code slip. Since all 3 agents were available in 3 dosage sizes of distinctive appearance, it was possible to give the patient the impression he was receiving a new medication by changing the pill size. At 4 week intervals, the clinic clerk, following a pre-arranged scheme, changed the medication.

Dosage ranged from 0.3 to 8.0 mgm. daily. The average daily dose was 2.5 mgm.

Patients were seen at fortnightly intervals. On each visit the individual's status was rated in 4 areas, on a 5 point scale from 1 (very poor) to 5 (very good). The arbitrarily chosen areas were:

1. Primary symptoms (anxiety, tension, depression)
2. Secondary symptoms (hallucinatory, delusional trends)
3. Social adaptation
4. Ability to sleep

RESULTS

Each 4 week interval is regarded as a unit. Despite a high rate of defection (13 or 30% of 34) the total number of observation units was 81. These were distributed as follows:

Harmonyl	29
Reserpine	27
Placebo	25

1. On the assumption that a patient will not readily give up a helpful medication, the individuals who voluntarily withdrew from this study would seem to be of particular interest (Table 2).

TABLE 2

FREQUENCY OF DEFECTION WITH ADMINISTRATION OF EACH DRUG

Harmonyl	5
Reserpine	3
Placebo	5
Total	13

No relation could be established between dosage level and defection.

2. Two weeks after institution of treatment 16 patients (53%) showed some improvement in at least one category included in the rating scale. By contrast 8 patients (27%) showed worsening of symptoms in at least one category (Table 3).

TABLE 3

INITIAL RESPONSE TO "NEW MEDICINE" IN CLINIC

	Improved	Worsened	Unaffected
Harmonyl	4	1	3
Reserpine	7	3	0
Placebo	5	4	3
Total	16	8	6

3. Subsequent changes in medication (*i.e.*, initiation of new observation periods) had little effect on the subjective response of the patient. (Tables 4 through 6).

TABLE 4

EFFECT ON CLINICAL STATUS OF SHIFTING FROM ANOTHER DRUG TO HARMONYL

(29 OBSERVATIONS)

	Improved	Worsened	Unchanged	Total
Primary Symptoms	8	3	18	29
Secondary Symptoms	5	9	20	29
Social Adaptation	5	1	23	29
Ability to Sleep	6	5	18	29

TABLE 5

EFFECT ON CLINICAL STATUS OF SHIFTING FROM ANOTHER DRUG TO RESERPINE

(27 OBSERVATIONS)

	Improved	Worsened	Unchanged	Total
Primary Symptoms	7	8	12	27
Secondary Symptoms	6	4	17	27
Social Adaptation	6	4	17	27
Ability to Sleep	8	6	13	27

TABLE 6

EFFECT ON CLINICAL STATUS OF SHIFTING FROM ANOTHER DRUG TO PLACEBO
(25 OBSERVATIONS)

	Improved	Worsened	Unchanged	Total
Primary Symptoms	5	3	17	25
Secondary Symptoms	5	3	17	25
Social Adaptation	2	2	21	25
Ability to Sleep	2	4	19	25

TABLE 7

EFFECT OF CHANGING DOSAGE & PHYSICAL APPEARANCE OF MEDICATION ON PATIENTS' CLINICAL STATUS

	No. Instances	Improved	Worsened	No change
Harmonyl				
Inc.	3	0	0	3
Dec.	4	0	1	3
Reserpine				
Inc.	4	2	0	2
Dec.	2	0	1	1
Placebo	9	4	1	4

4. At his own discretion the therapist could elect to alter the appearance of the pill the patient was receiving, thus giving the impression of a change in medication. Where this occurred in the middle of an observation period, such a change could be considered to give meaningful data concerning the efficacy of changing dosage. This occurred in 25 instances (Table 7).

5. Toxic manifestations: one patient developed an eczematoid rash while receiving reserpine. This cleared with discontinuation of the drug. There were no other toxic manifestations.

CONCLUSION

From the data presented here, it cannot be concluded that either Harmonyl or reserpine in the doses used is a more effective psychotherapeutic agent than is a placebo of similar physical appearance.

THE USE OF DEPROL IN CHRONIC PSYCHOTIC PATIENTS

VERONICA M. PENNINGTON, M.D.[1]

Extensive trials with meprobamate in controlled and double blind studies in over a thousand cases has furnished a background of experience for the present study of Deprol, a combination of 400 mg. of meprobamate with 1 mg. of benactyzine hydrochloride.

The relaxing qualities of meprobamate, affecting the psyche and soma have proved beneficial in the neuroses and psychoses. Producing few side effects, none of which endangered the patient's life, meprobamate is notable for its low toxicity.

Two preliminary studies of benactyzine hydrochloride (Phobex), one in 60 chronic schizophrenic patients, dosage 6-30 mg. daily, and a second study with chronic schizophrenics and seniles and arteriosclerotic patients, chosen in part because of a depressive element or retardation in their psychoses, daily dosage from 3 to 45 mg., were done. The trials ran from 1 to 23 months. Two percent of their group were greatly improved, 24% were considerably improved, 35% were slightly improved, while no change could be noted in 38%. Side reactions occurred in 5% and consisted of dizziness and a sense of depersonalization; all were alleviated by reduction of dosage or stopping the medication. Benactyzine hydrochloride seemed to raise the threshold for external emotional influences in many of these cases.

Jacobsen and his colleagues found that alterations in autonomic mechanisms, due to verbal stimulus, are more pronounced in normal subjects than in psychoneurotics, but show a tendency to be inactivated by repetition of the stimulus in the former and be provoked with the same intensity by repetition in psychoneurotics. The level of intellectual functions as measured by association, abstraction and similar tests was not altered by benactyzine hydrochloride (Phobex), making its use in workers requiring full intellectual control satisfactory. The study of Deprol was made on 135 depressed chronic psychotic patients, mostly schizophrenics, who were studied for periods varying from 1 to 17 months. These patients were observed daily and judged

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for their mental state, by the author and attendants. The dosage of Deprol ranged from 3 to 16 tablets daily in divided doses. Patients were usually started on 1 tablet 4 times a day as indicated. In general, results became apparent within 2 weeks, though some patients showed improvement in a week and some only after a month. Psychotic patients require much larger doses of neuroplegic drugs than do neurotics. Doses of benactyzine hydrochloride (Phobex) 0.5 to 1 mg. t.i.d. were considered sufficient for improvement in psychoneurotics in a study by Jensen.

Improvement consisted of greater interest in personal affairs, a better application to work and recreation, lessening of fear and apprehension, decreased stress from outer influences, and marked reduction in irritability and assaultiveness. The retardation and blocking of catatonic schizophrenics, sometimes mistakenly called depression, was reduced and sleep restored. Schizophrenics with a depressive element were frequently benefited by Deprol, as were the depressive reactions of seniles and arteriosclerotics and patients with the involutional psychoses. Shock therapy was entirely obviated in those taking Deprol either alone or in combination with chlorpromazine, perphenazine, Vesprin, reserpine or Dartal.

SUMMARIZED RESULTS

135 depressed chronic psychotic patients treated with Deprol

Diagnosis:	Patients
Schizophrenia	114
Senility	8
Arteriosclerosis	9
Involutional Psychoses	4
Total patients	135

Final Dosage:
4 to 16 tablets per day
(average 2 tablets q.i.d.)

Length of Treatment:
1 week to 17 months
(average 1.8 months)

Results:	Patients
Greatly improved	15
Considerably improved	41
Slight improved	53
Not improved	26
Total patients	135

(some improvement in 80%, considerable or great improvement in 41%)

Side Effects:	Patients
Drowsiness	4
Syncope	3
Dizziness	1
Restlessness	1
Dystonia	1

(side effects in 7%)

CONCLUSION

Deprol is a useful drug for many chronic psychotic patients, particularly those with an element of depression. It is notable for its lack of severe side effects and its low toxicity.

A TECHNIQUE OF MODIFYING ECT CONVULSIONS

WALLACE IRONSIDE, M.D., AND J. R. RITCHIE, M.B.[1]

That several methods of modifying ECT have been described implies that no one technique has found so much favour that it supersedes all others. We have found the following technique satisfactory for both in- and out-patient treatment. Its administration is simple and so far it has been free of serious complications. We have used it some 1,300 times over a period of 5 years on 115 patients. A female patient who needs treatment weekly has now had 156 modified convulsions without any complications.

Forty-five minutes before treatment 0.6-0.9 mg. atropine sulphate is given subcutaneously. Immediately prior to use 6 ml. of 5% (300 mg.) thiopentone (pentothal) is

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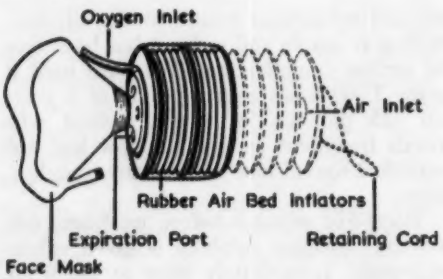
added to the ampoule containing 150 mg. of suxethonium bromide powder (marketed in New Zealand as "Brevidil E"). We prefer this relaxant to suxamethonium chloride ("Scoline", "Anectine") because it mixes satisfactorily with thiopentone and its action is said to be shorter(1, 2). Moreover, the ampoule is a convenient mixing vessel. The selected dose of this mixture is given by rapid intravenous injection. When the fasciculations of depolarisation subside the lungs are ventilated for 30 sec. with oxygen. Then ECT is given and immediately after clonus has ceased inflation with oxygen is continued until normal respiration is resumed.

We aim at modifying the convulsion to the level of weak muscular twitches of face and extremities. Obliterating the fit makes it difficult to judge whether there has been a therapeutic cerebral epileptic discharge. In only a few cases has it been necessary to use 6 ml. of the mixture (150 mgm. suxethonium and 300 mgm. thiopentone). For the majority of patients 4 ml. (100 mg. suxethonium and 200 mg. thiopentone) is enough. Frail or slightly built patients need smaller doses.

Only two patients have spontaneously complained of, and 3 on inquiry have admitted to, momentary unpleasant sensations especially in the face before losing consciousness. The remainder of our patients have not had any recollection of discomfort.

A "Plexacon" unit manufactured by Theratronics Ltd., London is used for ECT. Artificial respiration is done with a locally designed Kreiselman-type(3) of hand-bellows (Fig. 1) which is efficient, simple to manipulate and compact.



When spontaneous respiration is fully re-established the patient is turned on to his right side in a comfortable and safe post-anaesthetic position.

The technique has several advantages. Combining relaxant and anaesthetic in one solution obviates changing syringe barrels and the need for a second venipuncture should the needle be dislodged in the process. Venous thrombosis has been rare and has never meant dropping the technique. Atmospheric air can be used instead of oxygen. However, oxygen eliminates any risk of hypoxia. Holmberg, Hard and Ramquist(4) have demonstrated that relaxation and blood oxygen saturation prolong cerebral epileptic discharge, and they obtained suggestive evidence that this was therapeutically effective. Our experience tends to confirm their finding of prolonged convulsive activity and suggestion of therapeutic benefit.

There are some disadvantages. The most inconvenient drawback to this, and similar methods, is the difficulty in finding a suitable vein for i. v. injection in obese patients with the attendent risks of arteriopuncture and extravenous placement of the i. v. solution. Apart from this a patient may be frightened by the procedure of venipuncture. The technique could not therefore be used in some cases. In the alkaline thiopentone solution suxethonium is stated by its manufacturers (May & Baker Ltd.,) to lose its potency fairly rapidly. Several minutes can elapse, however, before noticeable deterioration has taken place and we have not yet had to mix a fresh solution. Few of our patients have needed post-convulsive artificial respiration for more than 3 minutes. At the other extreme, spontaneous respiration has been re-established almost immediately after convulsion. For the majority approximately 2 minutes artificial respiration suffices. We have not yet been alarmed by any case of prolonged apnea and do not know of reports of this contingency.

The technique we have described is easy to administer, ensures adequate relaxation, and is reasonably safe, particularly because of the efficiency of the hand bellows respirator. No method of pharmacologically modifying ECT is risk-free if only because of the inherent dangers of the drugs them-

selves(5). In our opinion it is worth while reiterating the advice that any psychiatrist using these methods should acquire the necessary resuscitative skills by a brief training from an anesthesiologist.

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A COMPARISON OF TRIFLUPROMAZINE (VESPRIN), CHLORPROMAZINE AND PLACEBO IN 85 CHRONIC PATIENTS [1]

JACKSON A. SMITH, M. D.,[2] DOROTHY CHRISTIAN, R. N.[3] AVONELL RUTHERFORD, R. N.[3] AND ELAINE MANSFIELD, R. N. M.P.N.[3]

The problem of the chronic schizophrenic patient remains unsolved and necessitates a continuing search for an effective therapeutic agent.

EVALUATION PROCEDURE

Evaluating behavioral change in such chronic patients is also a problem. The psychological tests tried which required the patient's participation clarified his lack of participation but little else, or the data collected was more a reflection of the evaluator's opinion than the patient's behavior.

After trying various methods of recording behavioral change, we found the most satisfactory form to consist of 2 sections : one is a modified mental status examination in which the patient's answers are recorded verbatim, and the other section is a checklist containing 9 groups relating to behavior and appearance (this includes 54 items).

Weekly progress notes are kept on a standardized check-list ; the opinions of the observer and of the ward personnel are included in these notes. In addition, an activity chart(5) is checked twice daily by the ward personnel and affords a continuing record of the patient's behavior during the intervals between observations.

The present project was run simultaneously in two hospitals. Both active preparations and the placebo were prepared in identical tablets and neither the patient nor the observer knew which medication was being given. Each patient received both medications and the placebo during the 3 months' trial period.

A total of 85 patients was included in the study ; 27 disturbed male patients were in one hospital and 30 males and 28 females were in the other. These patients were chronically ill schizophrenics who had been refractory to previous treatment efforts. None of the patients had been hospitalized less than a year.

Both active preparations and the placebo were given for 4 week periods. To establish the relative potency of the two compounds, they were given in equal amounts. The daily dose was increased each week by 50 mg. unless severe side effects occurred. Trifluprom azine and chlorpromazine were given orally each day as follows : 100 mg. the first week, 150 mg. the second week, 200 mg. the third week, and 250 mg. the fourth week.

The patient was considered improved when a more appropriate affect with an increased interest in his surroundings and an increase in activity of a desirable kind were observed.

[1] This study was supported by a grant from The Squibb Institute for Medical Research, New Brunswick, N. J., who also supplied all the medications used in the study.

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RESULTS

Of the 85 patients treated, 10 improved on trifluprομazine, 10 on chlorpromazine, and 5 on placebo. Fifty-nine showed side effects on trifluprομazine, 22 on chlorpromazine and 12 on placebo. The results were comparable in the two hospitals. On the basis of the frequency and rapidity with which side effects developed, the trifluprομazine appeared to have more than twice the potency of chlorpromazine.

DISCUSSION

Of the 85 patients treated with these two compounds, none improved sufficiently to be considered for discharge. It is apparent that neither of these drugs, in the dosage given, is sufficiently effective to be included in the routine treatment of the chronic patient. Nevertheless, it would appear that both drugs merit a trial in the treatment of the disturbed individual who presents a problem in ward management.

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AN EVALUATON OF MEPROBAMATE IN OPIATE WITHDRAWAL

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Meprobamate [2] has been reported to relieve muscular spasm, insomnia, and anxiety symptoms(1). Since these findings are prominent in the opiate withdrawal syndrome, it was hypothesized that meprobamate might be a useful adjunct in the treatment of this illness. To date, only a few isolated observations have been reported. A clinical study was devised at the U. S. Public Health Service Hospital, Fort Worth, Texas.

The experimental subjects were 62 males, admitted to the hospital withdrawal ward for treatment of opiate addiction. They ranged in age from 19 to 67, the average age being 30 years. Duration of addiction varied from one to 48 months with an average duration of 8.4 months. Fifty patients were addicted to heroin, 5 to morphine, and the remaining 7 to other opiates. The presence of physical dependency on opiates was determined by withholding all drugs until definite signs of the opiate withdrawal syndrome were noted. These addicts were then randomly assigned to one of 3 groups. After the presence of physical dependency was established, syrup of methadone was given in sufficient quantities to control the signs of withdrawal. The amount of methadone required was determined by a standardized empirical method. Stabilization doses of methadone ranged from 20 to 70 mgs. daily. The average dose was 45 mgs. daily, equivalent to approximately 140 mgs. of morphine. Once the stabilization dosage was established, patients were withdrawn at a standardized rate. The first group received no additional medication. The second group received 400 mgs. of meprobamate at morning, noon and 800 mgs. of meprobamate at bedtime. An identical dosage schedule was carried out with a completely inert placebo on the third group. The tablets could not be differentiated by taste, smell, consistency or appearance, and their identity was not

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[2] Meprobamate was supplied as Miltown by Wallace Laboratories, New Brunswick, N. J.

known to the staff until completion of the study.

Measurements consisted of a series of scales designed to objectify judgments about certain aspects of the withdrawal syndrome. The physicians recorded their observations each day at the same time on every patient. They included : withdrawal signs, subjective evaluation of sleep, objective muscle tension, subjective evaluation of muscle tension. The nursing staff reported observations on hours of sleep, appetite, talkativeness, well-being, motor activity, involvement with others, attitudes towards others and acting-out behavior.

The results were subjected to statistical analysis. There were 4 instances in which the null-hypothesis was rejected in favor of the experimental hypothesis. On the withdrawal signs measure, the placebo group showed significantly more severe withdrawal signs than the control group. The meprobamate group demonstrated significantly more objective muscle tension than the control group. Both the meprobamate and placebo groups experienced more muscle tension subjectively than the controls.

A negative placebo affect was observed in this study. Patients who received the placebo manifested significantly more withdrawal signs and subjective muscle tension than the controls. Those receiving meprobamate also appeared negatively affected as compared with the controls. They manifested more objective and subjective muscle tension. This study indicates again the effectiveness of the methadone substitution method in alleviating the objective and subjective responses of an opiate addict undergoing withdrawal. In our hospital milieu, patients undergoing treatment for withdrawal were comfortable, cooperative and amenable to treatment. They did not manifest the manipulative, demanding and acting-out behavior patterns commonly described(2). As determined by this study, meprobamate is not of value as an adjunct in the management of the opiate withdrawal syndrome. Placebos or ineffective drugs may adversely affect treatment of opiate withdrawal.

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CASE REPORTS

MENTAL DETERIORATION AND OCCLUSION OF THE INTERNAL CAROTID ARTERIES IN THE NECK

CLIFFORD L. WILLIAMS, M.D., AND WALTER L. BRUETSCH, M.D.[1]

The two common sites of occlusion of the internal carotid arteries are in the cervical portion—carotid sinus—(1) and in the terminal part of the artery—cavernous sinus, carotid syphon—(2), just before entering the intracranial cavity.

The psychiatric importance of atherosclerotic occlusion of one or both internal carotid arteries in the carotid sinus was first recognized by Fisher(1). The disease complex occurs in the later periods of life and may present the picture of senile or presenile psychosis. Greater awareness of the existence of such cases should lead to a wider recognition of this syndrome.

CASE REPORT

The male patient, at age 65, had a slight stroke which left him with a neurogenic bladder, causing intermittent retention. Otherwise, there were no sequelae, except some loss of interest in his occupation. Three years later, he suddenly became unconscious and after regaining consciousness, his memory was gone. He did not recognize his sister and other relatives. He had to be dressed and fed. His talk was unintelligible. The sudden and severe mental deterioration remained unchanged until his death 18 months later.

Physical examination revealed an elderly man in a state of complete dementia with a mumbling speech, impossible to understand. There was a barely noticeable drooping of the right corner of the mouth but no other residuals of a stroke. Both patellar reflexes were hypoactive. The patient had a staggering gait and would fall easily. On several occasions, he was found lying on the floor of his room.

The pupils were small, round, equal, and immobile to light. Arcus senilis was absent. The patient was apparently unable to see. When moving about, he would feel his way in the manner of a blind person.

The blood pressure was 150/95. An electrocardiogram showed evidence of myocardial damage. (There was a history of coronary thrombosis at the age of 58). Examination for carotid artery pulsation was inconclusive on account of lack of cooperation.

The Wassermann reaction of the blood and cerebrospinal fluid was negative. In the spinal fluid were 4 cells per cmm. The total protein was within normal limits. The urine contained a slight trace of albumin and numerous leukocytes due to the occasional use of a catheter.

The tentative diagnosis was atherosclerotic occlusion of the internal carotid arteries in the neck, followed by dementia.

Necropsy confirmed the diagnosis. In the right carotid sinus there was a fairly old thrombus (Fig. 1), superimposed upon an ulcerated atheroma, obstructing the entire lumen of the right internal carotid artery. The left carotid sinus was severely narrowed by atherosclerotic deposits.

In the right frontal lobe was a large infarction (Fig. 2), extending to the head of the right caudate nucleus. In the left temporoparietal region an area of softening was present, having destroyed the cortex and the underlying optic radiations. In both middle cerebral arteries there were several atherosclerotic plaques, but the basilar artery was free of atheroma.

Other findings were small scars (old infarcts) in the wall of the left ventricle of the heart. Both coronary arteries were narrowed to pin-holes by severe atherosclerosis. In the abdominal aorta were ulcerated sclerotic plaques.

COMMENT

Occlusion of the internal carotid artery in the neck is not a rarity. A stroke with transient monocular blindness and other visual difficulties is often but not always associated with it. The condition should be borne in mind particularly in instances of rapidly developing dementia.

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[1] From the Research Department, Central State Hospital, Indianapolis, Ind., and the Division of Mental Health, State of Indiana.

FIGURE 1

Carotid sinus with red thrombus protruding into the common carotid artery. The thrombus originated from an atherosclerotic ulceration. The thrombotic mass extended upward in the internal carotid artery to its entrance into the intracranial cavity.

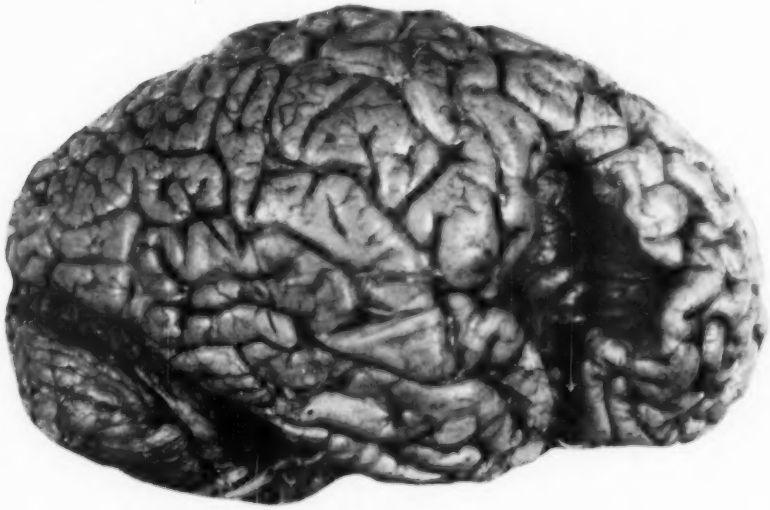

FIGURE 2

Large area of infarction in right frontal lobe, in patient with atherothrombotic occlusion of the right carotid sinus.

BLOOD DYSCRASIAS DUE TO PHENOTHIAZINE DERIVATIVES: REPORT OF FOUR CASES

MAGNUS C. PETERSEN, M.D., BEVERLY CAREY, M.D., AND DONALD V. RHOADS, M.D.[1]

Reported are one case of agranulocytosis due to mepazine (Pacatal), one fatal and one nonfatal case of agranulocytosis and one case of liver damage and hemolytic anemia due to chlorpromazine hydrochloride (Thorazine).

Case 1.—A white man 71 years old. Diagnosis: mental depression. On June 8, 1957, 33 days after administration of mepazine (Pacatal), 200 mg. per day, had been started, acute pharyngitis developed with temperature of 104° F. The total amount of mepazine received was 6,500 mg. The diagnosis of agranulocytosis was made and administration of penicillin and streptomycin in large doses was begun. On May 7 the white blood cell count had been 4,650 with 73% granulocytes; on June 10 the white blood cell count was 1,250 with "marked agranulocytosis." Between June 8 and June 16, the patient had a high fever, ulcerating pharyngitis, and progressive involvement of the bronchi by infection as determined by physical examination. Dosage of prednisone (Meticorten), 20 gm. every 4 hours, was started on June 10 and was continued in progressively decreasing amounts until after the patient began to improve. The patient also received 2 500-ml. units of blood. On June 14 the white blood cell count was 450 with no granulocytes seen on a blood smear, but on June 17 the white blood cell count was 1,900 with a few myelocytes and metamyelocytes noted in a smear of the peripheral blood. The patient's clinical condition and blood counts rapidly returned to normal.

Case 2.—A white man 32 years of age. Diagnosis: schizophrenia of a chronic undifferentiated type. Chlorpromazine was prescribed, and during most of the 48 days until the diagnosis of agranulocytosis was made the patient received 200 mg. per day. The total amount received was 15,200 mg. On February 13, 1956, the patient complained of tiredness, was pale and ill, had a temperature of 104° F., and had signs of pneumonitis in the left lung. On February 14 a blood smear revealed severe agranulocytosis with too few white blood cells for an accurate count. The patient was treated with tetracycline hydrochloride and was given 150 U.S.P. units of corticotropin in a 3-day period starting on February 14. High fever and pneumonitis continued and the patient died on February 19.

Case 3.—A white woman 71 years old. Diagnosis: acute brain syndrome due to alcohol. On February 28, 1956, she underwent mastoidectomy. Subsequently she had a sore throat and basilar congestion of the lungs with low-grade fever for 9 days. These symptoms cleared, but administration of antibiotics was continued until the patient developed glossitis and a temperature of 102° F. on July 19, 1956. Auditory hallucinations and delusions related to the brain syndrome had disappeared while the patient received chlorpromazine 100 mg. twice daily. The diagnosis of agranulocytosis was made on July 19, the 49th day of this medication. The total amount received was 9,800 mg. The white blood cell count on March 26 had been 5,000 and on July 3, 4,750. On July 20 it was 3,750 with 3% granulocytes. Penicillin and streptomycin were prescribed on July 19, and cortisone, 75 mg. every 6 hours, was ordered July 21. On July 23 the patient began to improve clinically, although the white blood cell count of 3,950 contained only 6% granulocytes. By July 27 the patient had recovered and the white blood cell count was 13,250 with 59% granulocytes.

Case 4.—A white man 61 years old. Diagnosis: schizophrenia of a paranoid type. Between March 25, 1955, and January 7, 1956, the patient received chlorpromazine in a total amount of 99,400 mg. with daily dosages varying from 200 mg. to 400 mg. In a second period between August 7, 1956, and January 19, 1957, the patient received 44,850 mg. in daily dosages ranging from 50 mg. to 300 mg. Between January 24, and February 16, 1957, 6,600 mg. was received. The use of chlorpromazine was discontinued on February 16 because of the appearance of jaundice. The hemoglobin concentration on January 24, 1957, had been 10.7 grams per 100 ml. of blood, but it decreased to 5.9 grams per 100 ml. on February 25. The serum bilirubin on February 14 was 1.3 mg. per 100 ml. with 1 mg. by the direct method and 0.7 mg. by the indirect method. On February 28 the total serum bilirubin was 1.6 mg., with 0.5 mg. by the direct method. On March 5 the result

[1] Rochester State Hospital, Rochester, Minn.

of the cephalincholesterol flocculation test was 4+ while the thymol turbidity was 12 units and alkaline phosphatase was 28 King and Armstrong units. By March 2 the jaundice had subsided and the hemoglobin concentration was 8 gm. after three 500-ml. units of blood had been given. On March 22 the hemoglobin was 11.6 grams. In our opinion this case is an example of acute liver damage and hemolytic anemia, both due to chlorpromazine.

Up to April 1, 1958, 1,382 patients had received chlorpromazine at the Rochester (Minnesota) State Hospital and 78 had received mepazine. It is to be noted that the 3 cases of agranulocytosis developed within the first 2 months of medication.

TWO CASE REPORTS IN BRIEF

OCCASION FOR LAUGHTER

I am laughing, Mother, laughing
Death is seldom such a giver
It is heady wine I'm quaffing
Now your voice is stilled forever.

Death can give as can no other
Freedom of my soul from you—
But oh, my Dearest, tell me, Mother
What am I to do!

OCCASION FOR ROMANCE

I see dark walls as I look at him
I cringe when he calls in this prison grim
And I feel no love and I have no child
My fancies roam and my thoughts grow wild—

Then comes by Knight to the old apple tree
In its branches white he makes love to me
And babies are born when before I had none.
Though like dew in the morn they go with the sun.

E. D. B.

CORRESPONDENCE

PREMATURE DISCHARGES FROM PUBLIC MENTAL HOSPITALS

Editor, THE AMERICAN JOURNAL OF PSYCHIATRY:

SIR: The current extreme pressure from the APA and other agencies concerned with a reduction in the number of institutionalized mentally ill persons, and the solving of the social problem resulting from mental illness, may be leading to probable more dire social consequences. The approximately three-fold increase in the number of specialists concerned with the alleviation of the mental health situation in the United States, and possibly also in Canada, is developing an army of indiscriminate persons meddling with the lives of unhappy people, not necessarily remedial. The notion and practice that anyone with a morbid or other interest in the behavior of people, is suitable for constructive assistance to his neighbor, must lead to greater numbers of persons seeking such help.

The vogue of state and regional conferences inviting people with no more qualification than a morbid concern and a willingness to join the army of mental health workers, threatens to leave the so-called normals as a minority of the population. A specific example is the recent statewide conference on mental health problems in California, where those attending were returned to their communities as "convenors", presumably to do missionary work for the case. Recalling the experience in military service during World War II, this practice has a horrifying aspect.

There are several other reasons to be considered. Despite the increasingly sobering judgments concerning ataraxics, the practice of premature releases from mental hospitals is well under way, with the aid of providing a supply of ataractic pills.

Psychotics seem to be floating over the country. Releases from the eastern part of the country are overflowing into the western states and are being re-hospitalized in the new locations soon after arrival. Establishment of supply stations for ataraxics for patients released from hospitals is of questionable merit.

Nevada is a small community and it has already had several such cases. Apparently those who had been previously confined for long periods have presence of mind sufficient to avoid re-hospitalization at the same institution, and get on the road to avoid such possibilities. The present competitive efforts to "empty" local institutions adds impetus to this movement.

I appreciate the merits of open hospitals as demonstrated in European countries. The adoption of the practice in the United States should be approached cautiously. Our patients are of a different cultural background with different feelings regarding conforming behavior. We take our "four freedoms" quite literally and have small regard for conformances. It is perhaps too early to tell, but is a reasonable presumption that the open-door policy for our mammoth institutions might result in an aggravation rather than a reduction of our community mental health problem.

For the negligible reduction in the number of institutionalized patients, we are multiplying many times over the number of mentally ill persons in open communities. I urge the timeliness for a re-examination of current efforts to reduce or eliminate the problem of mental illness and the serious implications of popularizing psychiatric or psychological services for the noninstitutionalized portion of our population.

I offer this letter for publication that others may pause to examine the implications.

SIDNEY J. TILLIM, M. D.
Nevada State Hospital,
Reno, Nev.

P.M.-G.M. SUCCINYLCHOLINE MODIFIED EST TECHNIQUE

Editor, THE AMERICAN JOURNAL OF PSYCHIATRY:

SIR: Some details in the technique of P.M.-G.M. succinylcholine modified electroshock therapy without barbiturates vary with individual therapists. Because of its importance, I recommend the acceptance of some modification I have used in approximately 1000 electroshock treatments given to about 100 unselected patients. The technique I have used is as follows:

1/75-1/50 mg. of atropine is administered intravenously. This is followed by rapid intravenous injection of succinylcholine chloride (10-15 mg.). The petit mal stimulation is then given *immediately* after termination of the injection. Approximately 30 seconds later the grand mal stimulation is given in the usual manner. Most therapists administer a subthreshold electric stimulation ten seconds after the succinylcholine injection, or upon noting fibrillations about the patient's mouth or eyelids, or the beginning of some feelings of suffocation.

Following the intravenous injection of succinylcholine, optimal muscle paralysis develops in about 30 to 60 seconds, or at the time of the cessation of muscular fibrillation. This maximum muscle paralysis persists for about 2 minutes.

If a petit mal stimulation is given 10 seconds after the succinylcholine injection, one faces the same risk as if the subthreshhold stimulation was given immediately following the injection. In neither case does the patient benefit from the muscle relaxing properties of succinylcholine chloride, because it takes 30 to 60 seconds for the maximal paralysis to develop. On the other hand, if the petit mal stimulation is given immediately, it creates an amnesia for the effects of succinylcholine and the balance of the electroshock treatment. Patients have no awareness of the muscular fibrillation and/or feelings of suffocation that are experienced by some treated with the delayed petit mal stimulation.

I use an alternating current apparatus with a setting of 100 volts and .1 second for the subthreshhold stimulation. On rare occasions I increase the setting to 110 volts, or decrease it to 90 volts. I use the former if the patient is not sufficiently stunned, and the latter if the petit mal reaction is too strong.

I caution against the use of electroshock machine without a built-in timer and an adjustable voltage. If such an apparatus is used for the subthreshhold stimulation, the therapist will run the risk of producing many grand mal reactions at a time when the muscle relaxant may be either absent in the blood stream, or present in an insufficient amount.

William Karliner, M.D.,
Scarsdale, N. Y.

PSYCHIATRIC INDICATION FOR ABORTION

Editor, THE AMERICAN JOURNAL OF PSYCHIATRY:

SIR: According to most of the American state laws an abortion is only legal if necessary to save the woman's life. As the non-psychiatric indications are decreasing many women are referred to psychiatrists with the question if there is a psychiatric indication. This frequently means passing the buck when the abortion seems clearly desirable, but nobody else wants to take the responsibility because of the legal insecurity.

As the laws stand there is hardly ever a psychiatric indication. Severely psychotic women do not get pregnant because they are in institutions. When a feeble-minded girl gets pregnant it is most unfortunate, but she will not die from it. It is even impossible to predict whether a pregnancy will result in a postpartum psychosis—which would not endanger life anyway.

Most frequently threatening suicide is used as indication. Suicide threatens in other conditions too. Many persons would rather commit suicide than go to jail. But

psychiatrists are not yet called upon to certify that a jail sentence must be cancelled because it endangers the convict's life. When a pregnant woman is in a state of panic or deep depression so that she may do harm to herself, she has to be treated and protected like any other person in such a condition.

However, not every suicide indicates mental illness. There are things which are valued higher than life. Suicide by a sane person is a social problem, not a psychiatric one. When a case certified because of threatening suicide comes to court, much depends on the personal attitude of the judge. Some will recognize ethical reasons; but others who condemn abortion from principle have the letter of the law on their side.

Construing, or misconstruing the law does not solve the problem. It is regrettable, but as the law stands there is usually no psychiatric indication. But there is a dire need for it. Legal recognition of severe health hazards as a valid reason for abortion must be demanded over and over again. The old point of discussion whether the social indication should be recognized will be eliminated when we accept the definition of the World Health Organization, which includes social well-being as an integral part of health. The statement says: Health is not just the absence of sickness but the entire physical, mental and social well-being.

Due to the legal situation many more abortions are performed illegally than legally, how many nobody knows. When a great number of respectable citizens know that before the law they are criminals the morale of the community is in a bad way.

Psychiatry is more than ever involved in the legal situation because so often the psychiatric indication is sought as the only way out to preserve health, if not to save life. Although this is a most controversial issue, from the standpoint of mental health there can hardly be a controversy.

Most important, of course, is the education of the public to prevent undesired pregnancies. Denial of sex relations is not the way to achieve this. Some states still have laws prohibiting conception control.

In the opinion of the Supreme Court in New York: "Every law not based on wisdom is a menace to the State." We still have laws not based on wisdom; will we find the wisdom to get rid of them.

Kate Frankenthal, M.D.,
New York City

MAN AND OTHER ANIMALS

> Man has a great endowment of judgment, but the greater part thereof is empty and deceitful. The animals have little, but that little is useful and true; and better is a small and certain thing, than a great falsehood.
>
> —LEONARDO DA VINCI

COMMENT

STATES ACT TO IMPROVE THEIR MENTAL HEALTH PROGRAMS

A tremendous and growing effort on the part of the states to increase community mental health services and improve conditions for the mentally ill is evident in action taken by state legislatures last year. There was a spectacular increase in the total amount budgeted by the states for mental health purposes and many states passed laws of great significance to the promotion of mental health throughout the nation. The size of the state budgets and the type of legislation passed also show that the states are accepting, and expect the communities to accept, greater responsibility for the mental health of their citizens.

Together, the states budgeted a total of $45.4 million of Federal, state, local and private funds for community mental health services last year. The funds are being spent to provide such community facilities as mental health clinics, services for emotionally disturbed children, special help for mentally retarded children, rehabilitative and aftercare programs for mental patients, alcoholism control programs, and advisory services to welfare agencies.

The total 1957 budget was 76% more than that of the year before. New York State accounted for a large proportion of the increase—$14.1 million. But even excluding New York State, the total 1957 budget was 28% more than the total for 1956. The largest increase was for mental health clinic services which rose from $18.1 million in 1956 to $37.8 in 1957. The ever increasing amounts budgeted for community mental health services denote the states' continued progress in providing facilities whereby psychiatric help is made available to people where they live and when they need it.

By far the major portion of the states' 1957 budget total was drawn from state and local funds, showing how the states have advanced in carrying their mental health load since Federal grants-in-aid were made available to the states 10 years ago. In 1948, the Federal Government made $3 million available in grants-in-aid for community mental health services and the states allocated a total of $2.4 million. In fiscal year 1957, Federal funds had risen to $4 million whereas state and local funds had skyrocketed to $41.4 million. In other words, the states, last year, invested more than 10 times as much state and local money for services outside mental hospitals as they received from the Federal Government for that purpose. Ten years earlier, the states didn't spend as much as they received from the Federal Government in grants-in-aid.

Three states (Colorado, Washington, Wyoming) for the first time in 1957 voted specific state appropriations for community mental health services, thus joining the large majority of states which already had identified mental health appropriations. Such action by a state legislature is concrete recognition of responsibility for community mental health services, and usually sets a precedent for additional and more adequate appropriations in future years.

Four states (California, Minnesota, New Jersey and Vermont) passed laws in 1957 providing grants-in-aid to localities for the development of community mental health services. A trend seems to have started in this new type of state-aid legislation which has proved effective as an inducement for local governmental units to step up their mental health services. New York passed the first such law in 1954. It provided for the state to reimburse localities for approved mental health expenditures on a dollar-for-dollar basis making it possible for a city or county to double its mental health resources without additional cost. The Act has resulted in a tremendous expansion of community mental health services in New York, as has similar legislation since passed by other states.

Using a different approach to the development of local community mental health services, three midwestern states (Iowa, Kansas and South Dakota) passed laws in 1957 which authorized their coun-

ties to levy taxes or appropriate funds to support community mental health centers or clinics.

Laws in behalf of the mentally ill were passed by a number of states in 1957, continuing the nationwide trend to replace antiquated methods of dealing with the mentally ill by modern, psychiatric methods of care and treatment. States and territories that took steps to modernize their laws with regard to the commitment, detention and care, and treatment of the mentally ill included Alaska, California, Colorado, Kansas, Minnesota, Montana, North Dakota, and Texas.

Seven states (Connecticut, Maine, Minnesota, New Hampshire, Oregon, Rhode Island and West Virginia) took legislative action which ratified the Interstate Compact on Mental Health. This agreement, first issued in 1955, makes the patient's welfare the cardinal consideration in deciding whether he shall be kept in one state or sent to another. Ten states are now participating in the Compact (Connecticut, Maine, Massachusetts, Minnesota, New Hampshire, New Jersey, New York, Oregon, Rhode Island, and West Virginia).

Legislatures showed continued high interest in mental retardation. Arkansas, Nebraska, Texas, and Wisconsin authorized the construction of new institutions for care and treatment of the mentally retarded. Idaho and Minnesota made it mandatory for local school districts to provide instruction for handicapped children. A diagnostic and training center for the mentally retarded will be established in the State of Washington. New York is now developing plans for a state research institution on mental retardation.

Several states took action to develop residential treatment centers for emotionally disturbed children. In Washington, a resident treatment center for such children is being established at Western State Hospital where research as well as treatment will be carried on. Minnesota authorized a resident treatment center for emotionally disturbed children. In California, the Youth Authority is initiating a special program of intensive treatment in two institutions for juvenile delinquents.

Some of the states took action to expand research and training activities. Texas is planning to set up a new hospital near the Texas Medical Center in Houston for training and research in mental illness. Iowa instituted a Mental Health Research Fund. A research program in alcoholism was established at the College of Medicine of Ohio State University. North Dakota directed the Medical Center of the University of North Dakota to encourage the training of psychiatric personnel for staffing the mental health agencies of the state and also provided training stipends.

It is obvious that the public is increasingly concerned the country over with mental illness. There is every reason to believe that this trend will continue and will result in continued improvement in the mental health of the nation.

R. H. Felix, M. D.,
Director, National Institute
of Mental Health,
Public Health Service,
Bethesda, Md.

THE PSYCHOTHERAPIST

He must possess the persuasiveness that adjusts itself to every individual, a diplomat's suave way of negotiating, and the adroitness of a detective in understanding the secrets of a soul without betraying it.

—Nietzsche

OUR SENIOR EDITOR

On July 24, 1958, Dr. William Rush Dunton, Jr., attained his ninetieth birthday. The event was honored by the assemblage of his family and friends for a southern-style crab feast, organized by his daughter and son-in-law, Mr. and Mrs. Edward Furst, at the apartment house in Baltimore where Dr. and Mrs. Dunton live. The gathering was a large one and included distinguished guests from far and near. Good-wish telegrams came from occupational therapy associations throughout the country.

While Dr. Dunton's name first appears officially in 1927 as a member of the Editorial Board of this Journal, his contributions to its production date from well before World War I. Fifty years later the Council of The American Psychiatric Association awarded him a Certificate of Merit in recognition of this unique length and variety of services which continue actively to this day.

For those who may not be aware of the significance of Dr. Dunton's middle name it is to be noted that he is the grandson of William Rush, eminent first American sculptor and cousin of the famous Philadelphia physician, Benjamin Rush, first American psychiatrist and author of the first American treatise on diseases of the mind.

Dr. Dunton's activities in the medical and psychiatric fields have brought him many honors. In 1958 he was named Outstanding Physician of the Year by the Baltimore County Medical Association, of which he is the only living founding member and which he served as secretary, vice-president and president.

He was also associated with the founding of the Maryland Psychiatric Society and officiated for a time as its secretary.

One of our Senior Editor's greatest contributions to our discipline has been in the field of occupational therapy. This work he began during his first hospital assignment in the 1890s. In 1917 he was one of the incorporators of the National Society for the Promotion of Occupational Therapy, and later held the offices of treasurer and president of that organization. This interest he followed, with various publications, through the years; his textbook *Occupational Therapy, Principles and Practice*, with Sidney Licht as co-author, is now in its second edition.

It is a pleasure for the Editor, and on behalf of the Editorial Board, to express our appreciation and gratitude for the substantial help we have received from Dr. Dunton through all these years, not only in the technical details of editorial work but especially in the wisdom and good counsel born of long experience and devoted service. Besides all this he is a delightful person to know and to count as a friend. Unnumbered patients have been helped on their way by his sympathetic care and personal interest. This Journal has profited for as long as we can remember, by his conservative and stimulating influence. May it long continue!

C. B. F.

William Rush Dunton, Jr.

PROCEEDINGS OF THE AMERICAN PSYCHIATRIC ASSOCIATION

THE ONE HUNDRED AND FOURTEENTH ANNUAL MEETING SAN FRANCISCO, CALIFORNIA, 1958

The 114th Annual Meeting was held in San Francisco, California, May 12-16, 1958 with headquarters at the St. Francis Hotel and business meetings and scientific sessions at the Civic Auditorium. The opening meeting was called to order by Dr. Harry C. Solomon, President, at 9 : 30 a. m. on May 12. Addresses of welcome to the members of the Association were delivered by Harold S. Dobbs, Acting Mayor of San Francisco, and by Robert C. Combs, M.D., President of the San Francisco Medical Society. Following these welcoming remarks, Dr. Solomon read a message from the President of the United States as follows:

Please give my greetings to the members of the American Psychiatric Association assembled in their 114th Annual Meeting and a special welcome to their guests from abroad. This historic medical society has been concerned with our peoples' mental health and, over the years, with steady progress in research and preventive measures, it has contributed much to the well being of the national community. Strengthened by a splendid tradition of service, its members have continued their advance on the frontiers of knowledge for the benefit of all mankind. Congratulations and best wishes for a memorable meeting, Dwight D. Eisenhower.

President-Elect Dr. Francis J. Gerty was introduced by Dr. Solomon, who then requested the Medical Director to present his report to the membership. Dr. Blain read his final annual report as Medical Director, reviewing briefly his ten years in that position. Dr. David C. Wilson gave his report as Speaker of the Assembly of District Branches relating the progress and growth of the District Branch movement. The Chairman of the Arrangements Committee, Dr. Alfred Auerback, reported on the activities and social functions available to members and guests during the week of the meeting. Dr. Karl Bowman, Chairman of the Program Committee, announced several changes in the program and noted new features at this meeting, including a series of short papers without discussion. These innovations permitted a total of 181 scientific papers to be included, as well as 22 Round Tables.

Dr. William Malamud, Secretary, reported that the total membership on March 31, 1958 was 9,801. He also informed the membership that the Assembly and the Council had recommended the establishment of the Tennessee District Branch, the Intermountain District Branch, and the Queens County (N.Y.) District Branch. On separate motions from the floor, the membership approved the three new District Branches. Dr. Jack R. Ewalt, Treasurer, then presented his report which is included in another section of these Proceedings.

Dr. John I. Nurnberger, Chairman of the Hofheimer Prize Board, announced the awarding of the Prize to James Olds, Ph.D., of the University of Michigan for research reported in his paper, "Self Stimulation of the Brain; Its Uses to Study the Local Effects of Hunger, Sex, and Drugs." Honorable mention was given to Hans H. Strupp, Ph.D., for research on "The Psychotherapists' Contribution to the Treatment Process," and to Joseph Schachter, M.D., Ph.D., for his study on "Pain, Fear, and Anger in Hypertensives and Normotensives." The seventh winner of the annual Isaac Ray Lectureship Award was announced by Dr. Frank J. Curran, Chairman of the Board. The winner was Dr. Alistair McLeod of Montreal for his contribution to furthering understanding between law and psychiatry.

Dr. Malamud introduced the recommendations on the Membership Committee, as approved by the Council, regarding applications for election to membership and for changes of membership status. On motion, duly seconded, the recommendations were approved by the membership as pre-

sented. The list included 735 new members bringing the total membership up to 10,536.

Dr. Solomon was introduced by Dr. Gerty and gave his Presidential Address entitled "The American Psychiatric Association in Relation to American Psychiatry" in which he strongly recommended that alternative facilities replace the large public mental hospitals. Dr. Gerty was respondent.

Memorials for the late Dr. William Sandy and Dr. R. Finley Gayle, Jr., distinguished Past-Presidents who expired during the year, were presented by Dr. Arthur Noyes and Dr. David C. Wilson respectively. The audience then stood for a moment of silence in memory of deceased members of the Association. The benediction was pronounced by the Reverend Ferguson of San Francisco.

The next business session was called to order by the President on Tuesday afternoon, May 13, at 2:00. Dr. Evelyn Ivey reported the following election results for the Board of Tellers: Proposed amendments to the Constitution, 4,128 votes returned; Proposition No. One, 3,678 in favor, 443 opposed, no vote on 7 ballots; Proposition No. Two, 3,667 in favor, 445 opposed, no vote on 16; Proposition No. Three, 3,575 in favor, 526 opposed, no vote on 27. With reference to the election of Officers, the total number of ballots cast was 4,688 of which 19 were rejected, leaving a total of 4,669 valid ballots to be acted upon. The Officers elected for 1958-59 are as follows: Dr. William Malamud, president-elect; Dr. David C. Wilson, vice-president; Dr. William B. Terhune, vice-president; Dr. C. H. Hardin Branch, secretary; Dr. Robert H. Felix, treasurer; Incoming councillors—Dr. Dana L. Farnsworth, Dr. Lawrence Kolb, Jr., and Dr. Robert T. Morse.

Reports were presented by the Coordinating Committee Chairmen who reviewed the activities and plans for their respective Standing Committees: On Technical Aspects of Psychiatry, Dr. Frank J. Curran; On Professional Standards, Dr. Wilfred Bloomberg; and On Community Aspects of Psychiatry, Dr. Paul V. Lemkau. This concluded the business session, and there was a short recess before the Convocation.

Dr. Solomon presided at the Convocation for the newly elected Fellows with Dr. Alfred Auerback as Grand Marshal. Deputy Grand Marshals were Dr. A. E. Bennett and Dr. M. D. Spottswood. The Processional March got underway at 3:00. Dr. Solomon gave an official welcome to Fellowship and Dr. Gerty introduced the Fellowship Lecturer, Dr. J. R. Rees of London, England, who spoke on "The Way Ahead." Dr. Jack R. Ewalt responded. The program was closed with a Recessional March led by the Grand Marshal.

The next business session was held on Wednesday morning, May 14, at 9:30 with Dr. Solomon presiding. The Secretary gave his report to the membership reviewing the actions of the Council since the last Annual Meeting. These matters were duly approved upon proper motion from the floor. By separate motion, Philadelphia was approved as the site of the 1959 Annual Meeting. The secretary then read the names of those retiring from various official positions in the Association, e.g., officers, councillors, and committee chairmen, who would be sent Certificates following the Annual Meeting. This concluded the official business, but as a special feature, slides of the new Central Office were shown. Comments were given by Dr. William B. Terhune, who had served as Chairman of the Building Fund Committee, and Mr. Robert L. Robinson, Public Information Officer.

The Adolf Meyer Research Lecture was presented at 10:30 a.m. on May 14 in the Main Arena of the Civic Auditorium. Dr. Solomon introduced the speaker, Dr. W. Mayer-Gross of Birmingham, England, whose lecture was entitled "Model Psychoses—Their History, Relevancy and Limitations." Dr. J. J. Elkes was the discussant.

The Annual Dinner was held on Wednesday evening, May 14, at the Fairmount Hotel. Highlights of this event were the presentation of the Past-President's Medal to Dr. Solomon by Dr. Karl Bowman and the reading of a special tribute by the President honoring Dr. Daniel Blain, retiring Medical Director. This tribute, which was prepared at the direction of the Council, is as follows: "The American Psychiatric Association pays this Tribute to Dan-

iel Blain, M.D. for Exceptional Service rendered as its first Medical Director from February nineteen hundred and forty-eight to September nineteen hundred and fifty-eight. His unselfish and whole-hearted attention to his task and his creative ability are forever eulogized by the priceless products of his work which all who will may see. To recount his accomplishments is to chronicle the advance of psychiatry over a decade, for he *initiated* many of them, *furthered* others, and *shared* in all of them. His breadth of vision and tireless devotion to duty have endeared this respected Fellow of the Association to all who have worked with him. It is truly said that he gave of himself without stint or reservation for the benefit of the Association and the mentally ill. With boundless gratitude, the members of the Association join as one in wishing him Godspeed as he relinquishes his position as Medical Director and turns to other tasks in the Association's behalf.

"Done on the occasion of the One Hundred and Fourteenth Annual Meeting of the Association in San Francisco, California in the month of May nineteen hundred and fifty-eight." This tribute is signed by the President and the Secretary. There were no speeches and the Dinner was followed by a floor show and informal dancing.

The final business session was held on Friday, May 16, at 9 : 00 a. m. in the Rear Larkin Hall of the Civic Auditorium with Dr. Solomon presiding. The Secretary reported the actions of the Council at its meeting on May 15, and these matters were approved by the membership. By separate motions, District Branches were approved for Delaware, Northern Indiana, and Mississippi. The Secretary announced the total APA membership as of May 12 with the addition of the new members as 10,536. The total Annual Meeting attendance was 3,708, including 1,865 members, 636 wives of members, 906 non-members, 256 exhibitors and 45 representatives of the Press.

New Officers for the Assembly of District Branches were reported as follows : Dr. Walter Obenauf, Speaker ; Dr. Alfred Auerback, Deputy Speaker ; and Dr. John R. Saunders, Recorder. Dr. Mathew Ross was announced as the new Medical Director effective upon the retirement of Dr. Blain on September 1, 1958.

Dr. Solomon presented to Dr. Gerty the gavel signifying his assuming the Presidency. Following brief remarks by the new President, the session was adjourned. The 114th Annual Meeting was officially closed at 5 : 00 p. m. on May 16.

SUMMARY OF MEETINGS OF COUNCIL AND EXECUTIVE COMMITTEE, MAY 1957 TO MAY 1958

This report presents in summary form the principal actions of the Council and the Executive Committee at meetings held throughout the year. Many routine matters, such as referrals to Committees prior to definitive actions, are not included. Copies of the full minutes have been forwarded to the officers of each District Branch and Affiliate Society following the various meetings to keep their members informed of the matters that were considered and the action that resulted.

Executive Committee Meetings, June 29 and October 26, 1957. Authorized the Treasurer at his discretion to deposit small, undesignated cash gifts to the APA in a separate fund for library purchases. Approved continuing the quarterly audit of APA financial records at the increased cost estimate prepared by the auditing firm. Approved payment of renovation expenses for the APA Central Office building from current funds until the fall Council Meeting and directed that negotiations for a mortgage should be discontinued during this period. Authorized the President to appoint an APA Committee to work in conjunction with the Jamestown Festival to call attention to the first mental hospital in the United States at Williamsburg, Virginia and approved use of the Association's name as cooperating in this event. Approved continued membership by the Association in the World Congress of Psychiatry and authorized payment of its unpaid dues. Recommended Dr. Francis J. Braceland as the caucus selection for presentation as a Vice Presidential nominee to represent the APA on the next International Con-

gress of Psychiatry. Directed that an invitation should not be extended to hold the next International Congress of Psychiatry in the United States. Appointed Dr. Francis J. Braceland as official Delegate to the General Assembly of the International Society for the Organization of World Congress of Psychiatry at its meeting in Zurich on September 2, 1957. Directed that APA Delegates to the Second International Congress of Psychiatry should listen sympathetically to proposals initiated by representatives from other nations regarding the formation of an international psychiatric association and bring such proposals back to the Council for action. Authorized a sub-committee of the Board of the Isaac Ray Award, selected by the Chairman, to prepare a suitable citation commending Judge David Bazelon for his interest and legal interpretation of psychiatric matters as demonstrated by the Durham Decision and directed that the statement should be circulated among the Council for approval. Approved in principle a proposed amendment to the Constitution prepared by the Assembly regarding election to membership in the Association through the District Branches and referred the proposal to the Committee on Constitution and By-Laws for re-phrasing, if necessary, in consultation with appropriate representatives of the Assembly. Approved a proposal by the Medical Director to pool Central Office personnel from several presently operating projects dealing with services to mental hospitals, into a single administrative group. Approved the introductory statement to the Standards for Public Outpatient Psychiatric Clinics as presented by the Committee on Standards and Policies of Hospitals and Clinics and authorized the Committee to proceed with its preparation of the Standards. Empowered the President and the Medical Director to consider the matter of nominations for office in the World Federation for Mental Health annual meeting in Copenhagen in August 1957 at no expense to the APA. Agreed that Dr. Herman C. B. Denber should be appointed as APA representative to the meeting of the Congrès de Médecins Alienistes et Neurologistes de France et des Pays de Langue Française in Lyon, France during September 1957 at no expense to the APA. Agreed that Dr. Rudolph G. Novick should be reappointed as APA representative on the advisory committee for the health program of the National Congress of Parents and Teachers. Directed the Chairman of the Membership Committee and the Membership Office to prepare a list of hardship cases regarding the attendance requirement at a Convocation for newly elected Fellows, together with pertinent details, and present it to the Council for possible waivers. Directed that the Food and Drug Administration should be informed that the APA regrets its inability to participate in the fixation of drug dosages because this is outside the functions of the Association. Suggested that the matter of dental care in mental hospitals be included on the agenda for the 1957 Mental Hospital Institute in cooperation with the Committee on Standards and Policies of Hospitals and Clinics. Agreed that the Central Office staff should use their discretion in accepting all advertising material for the *Mail Pouch*. Indicated its appreciation to Dr. Frederick L. McDaniel with applause upon the announcement by the President of his retirement from the Central Office staff after 5 years of service. Approved a $50 annual contribution to the National Society for Medical Research. Recommended that action be deferred on the performance bond to cover the renovations to the APA Central Office building pending reconsideration of the matter by the Council. Approved an interim meeting of the Budget Committee and authorized payment of the expenses from the Contingency Fund. Approved a change of name for the Section on Convulsive Disorders to "Section on Convulsive Disorders and Brain Function." Agreed that instead of establishing a specific rule to govern the matter of anyone serving simultaneously on both the Council and a Committee, it should continue to be left for decision in case of each individual involved. Agreed that the matter of fee charging to physicians and their dependents should be left to individual discretion. Recommended to the membership the establishment of the Intermountain Psychiatric Association as a District Branch of the APA with the proviso that the geographical coverage be revised to meet the approval of the Assembly. Approved the solicitation of funds by the Committee on Cooperation with Leisure Time Agencies to schedule two conferences on recreation at no cost to the APA. Approved the solicitation of funds by the Committee on Academic Education to finance a library research project on mental health problems of youth. Approved a pilot Design Clinic as requested by the Architectural Study Project with the proviso that subsequent clinics will not be scheduled unless each one can be continued as a self-supporting operation. Authorized a budget revision at the discretion of the Treasurer to expend residual funds in the Architectural Study Project account in accordance with the terms of the original

grants. Approved the solicitation of funds by the Medical Director to finance a psychiatric-legal research study in cooperation with the Georgetown University Law School and Judge David L. Bazelon. Authorized translation of appropriate APA publications into other languages by the Committee on Public Information and approved the printing and distribution of such translated documents by the Central Office at the discretion of the Medical Director with the necessary expenses charged to the Publications Revolving Fund. Approved APA cooperation with Pennsylvania Mental Health, Inc., in a project to study public mental health education, with the proviso that there should be no cost to the Association other than Mr. Robinson's time. Directed the Secretary to inform the Academy of Psychoanalysis that various members of their society are presently serving on APA committees as individuals but it is not possible at this time to include official representatives from other organizations on these committees, and that the entire committee structure is under study and this general problem will also be considered. Approved an APA Personnel Project on the recruitment, distribution, and utilization of psychiatrists as requested by the Medical Director and authorized the solicitation of funds to implement the project. Approved a realignment of Central Office staff duties to permit Mr. Joseph Turgeon to handle miscellaneous business operations for the Central Office as Assistant Business Manager in addition to his previous work as Assistant to the Secretary and approved a revised budget for the Central Office with a $5200 gross increase for the 1957-58 budget year to implement this operation. Directed that the citation awarded by the U. S. Army to Dr. Thomas D. Woodson for meritorious service should be included in his official APA file. Authorized Mr. Robinson, with the approval of the Medical Director, to extend Press Room services to sister organizations during the APA Annual Meeting and to use his own discretion regarding the number he can accommodate and how much to charge each group.

Council Meeting, November 23-24, 1957. Approved the actions of the Executive Committee since the last meeting of the Council. Renominated Dr. Henry Brosin as an APA representative on the American Board of Psychiatry and Neurology. Authorized the Treasurer at his discretion to approve and implement budget revisions upon the receipt of specific grants or similar funds by the Association. Approved the payment of renovation expenses for the APA Central Office building from current funds and authorized the negotiation of intermittent short-term loans, if necessary, to meet the regular financial obligations of the Association. Accepted with regret the resignation of Dr. Daniel Blain from the position of Medical Director, effective September 1, 1958, and expressed appreciation on behalf of the Association for his work in this capacity. Directed that the APA should continue to offer advisory, consultation, inspection, and rating services by the Central Inspection Board following termination of the CIB relationship with the Joint Commission on Accreditation of Hospitals. Directed that the services of the Central Inspection Board should be offered to all psychiatric hospitals making application and that they should also be available to private psychiatric hospitals, psychiatric units in general hospitals, facilities for the mentally deficient, newly established psychiatric hospitals, and for the re-inspection of hospitals previously inspected. Directed that the standards used by the CIB should continue to be those established for such facilities by the APA. Directed that the system of inspections currently used by the CIB should be immediately reviewed by that body to determine whether methods can be devised to economize time and to give increased representation to the treatment aspects of therapy and rehabilitation, rather than custodial methods, in the mental hospital function and at the same time preserve the high quality of the inspections. Directed that the services provided by the CIB staff should be set up administratively as part of the Mental Hospital Service under the Medical Director and directed that the Central Inspection Board should be re-constituted as a body concerned with the major policies to be followed by the CIB staff in its advisory, consultation, inspection, and rating services. Directed that in all new contracts the entire cost of services offered by the CIB staff should be charged against the hospital or hospital system requesting such services. Approved in principle the recommendation of the Committee on National Defense for a suggested fee schedule to regulate the charges for various forms of psychiatric treatment under the Medicare Program for dependents of the Armed Forces in civilian medical facilities. Authorized the dissemination of informative material to the membership regarding the details of Public Law #569 and the subsequent directive by the Secretary of Defense relative to the treatment of emergency mental conditions under the Medicare Program. Approved Chicago as the site for the 1961 Annual Meeting and approved Los Angeles for the 1963 Annual Meet-

ing. Authorized the payment of $900 from the General Fund to finance a portion of the expenses incurred in the preparation of the exhibit illustrating the functions and geographical area covered by the Assembly of District Branches. Suggested that the President appoint a special committee to conduct informal negotiations with the Canadian Psychiatric Association regarding a possible APA-CPA Joint Office in Canada and the matter of APA activities in that country. Directed the Secretary to contact the family of the late Dr. R. Finley Gayle, Jr., and to express sincere sympathy on behalf of the Council and the membership for their bereavement. Agreed that the Program Committee should use its best judgment in the matter of a necrology at the Annual Meeting. Agreed that the Convocation Ceremony should follow the same plan as that of the 1957 Annual Meeting. Directed the Secretary to contact the Secretary of the American Psychoanalytic Association to explore the matter of inter-Association relationships on the Annual Meeting Program. Approved a recommendation by the Committee on Child Psychiatry that the APA recognizes Child Psychiatry as a sub-specialty within psychiatry and that to qualify as a child psychiatrist requires special training. Directed the Committees on Child Psychiatry and on Medical Education to consider jointly the details of standards for training in the sub-specialty of child psychiatry and to submit their proposed standards to the Council for approval. Authorized the Committee on History of Psychiatry to solicit funds to finance a research study on the social history of American psychiatry. Approved in principle a request from the Committee on Medical Education for authority to schedule teaching institutes upon request from teaching centers but allocated no specific funds to finance this operation. Approved a recommendation by the Committee on Mental Deficiency that the APA request the American Association on Mental Deficiency to appoint a committee to maintain liaison with the APA. Authorized the appointment of Dr. Donald Carmichael as representative to the Interdisciplinary Study Group. Directed that the opinion of the APA is that bromides are unsafe for unsupervised use by the laity and that they should be restricted to prescription sale. Directed that there should not be exclusive advertising in the Research Reports which review Regional Research Conferences. Agreed that advertising available to all interested firms would be satisfactory in the Research Reports. Approved the recommendation of the Committee on Committees that there be no change at present in the committee structure. Directed the Secretary to inform the College of Osteopathic Physicians and Surgeons that it is not possible to consider special membership classifications at this time because of constitutional restrictions. Indicated that by its previous action on May 2, 1953 Associate Members were put on notice that after five years in this membership status their dues would automatically be increased to the same level as Members and directed that the effective date for such increase should be April 1, 1958. Directed the Secretary to inform the International Council for Health and Travel that it was impossible to comply with their request for the names of the two most outstanding members of the Association because of the difficulty of selecting them. Approved the six objectives presented by the Committee on Standards and Policies of Hospitals and Clinics for revision of 3 paragraphs of the APA Standards which deal with the chaplaincy service. Directed that its action which approved certification of psychologists is rescinded, and reaffirmed its previous position as evinced in a joint statement with the American Medical Association and the American Psychoanalytic Association dated October 15, 1954 to the effect that psychotherapy is a form of medical treatment and does not form the basis for a separate profession. Directed that a verbatim copy of this joint statement be published in the *Journal* and the *Mail Pouch*. Directed that the various District Branches should be encouraged to obtain legal opinions relative to their own geographical area regarding certification of psychologists. Approved a recommendation by the Ad Hoc Committee in Liaison with the American Academy of General Practice that District Branches be requested to form committees to work with local AAGP societies. Appointed Dr. Francis J. Gerty to the Editorial Board of the *American Journal of Psychiatry* with the understanding that he will not become active until completion of his tenure as President. Authorized the appointment of a special committee to investigate the matter of publishing the *Journal* through a commercial publication firm. Authorized the SK&F Foundation Fellowship Committee to request additional funds to continue its program beyond the present termination date. Directed that the Convocation attendance required to secure the Fellowship Certificate be waived for Dr. Alex S. Hershfield due to his illness. Directed that all dues for Dr. Norman C. Morgan be waived because of his illness until such time as he is able to return to work. Authorized the House Committee to expend up to $1,000 to imple-

ment the Dedication Ceremony for the new APA Central Office building.

Executive Committee Meetings, January 25 and March 29, 1958. Suggested that the President appoint appropriate representatives to attend the AMA Conference for Attorneys and Executive Secretaries of Medical Societies in Chicago on May 9-10 and authorized payment of their expenses from the Contingency Fund. Ruled that the preparation of a regular newspaper column on mental health is not unethical *per se*, and in the interest of improved public understanding of mental health, approved the recommendation of the Committee on Public Information that there is no objection to a newspaper column by a properly qualified member of the Association. Reaffirmed its previous policy whereby the APA is responsible only for the expenses of one member of the Committee on Research at all Regional Research Conferences. Rescinded its previous interpretation of the geographical qualification for District Branch membership and directed that members are limited to membership in a single District Branch at any specific time, but they can belong at their own discretion either where they work or where they live. Approved the recommendation of the Committee on National Defense for a suggested fee schedule to regulate the charges for various forms of psychiatric treatment under the Medicare Program for dependents of the Armed Forces in civilian medical facilities and indicated that this fee schedule is considered by the APA to apply only to physicians specializing in psychiatry. Directed that there should be no change in the present arrangements for publishing the *Journal* and that the APA should continue to act as publisher. Authorized the Committee on Research in cooperation with the Medical Director's Office to initiate a search for funds to finance a conference on research to be co-sponsored by other national and regional groups. Approved the establishment of a President's Award with funds previously contributed to the Sackler Fund subject to further negotiations and the formulation of complete details. Approved the graduated subscription schedule as presented by the Medical Director to implement an increased service program for subscribers to the Mental Hospital Service. Approved in principle a proposal submitted by the Medical Director for establishment of a mental hospital and clinic organization under APA auspices and suggested that the President appoint a special committee to assist the staff in working out a detailed plan to implement the matter. Agreed to approve a proposal by the World Federation of Mental Health to designate 1960 as Mental Health Year. Authorized a contribution of $500 to the Joint Commission on Mental Illness and Health after the beginning of the new budget year on April 1, 1958. Requested both the Secretary and Past-President Braceland to contact Dr. Benedict Nagler and to express regrets for the oversight by the Executive Committee which prevented his attending a meeting of the Advisory Committee on Occupational Therapy Education to the AMA Council on Medical Education and Hospitals as a representative of the APA. Authorized the President to write a letter to appropriate individuals indicating that the Executive Committee looks with favor on their proposal to form an Interdisciplinary Recreation Group. Directed that the 1958 fall Committee Meetings should be scheduled in Washington, D. C. on October 31-November 1. Directed that the fall Council meeting should be held at the Central Office on November 21-22. Approved the payment, from the Research Committee budget, of stenographic expenses incurred by the Chairman of the Committee in preparation for the Annual Meeting of the American Association for the Advancement of Science. Authorized the Treasurer to accept a grant of $20,000 from the Smith, Kline and French Foundation to finance a program for one year designed to advance the theory of Remotivation in State Hospitals. Directed that the name of the Association should not be used in any form with a training film for general practitioners proposed by the Wallace Laboratories and directed that anyone acting as advisor or consultant for this film should do so as an individual and without official connection to the APA. Authorized the President and the Medical Director to deal with the matter of financial support from pharmaceutical firms for a 1958 Annual Meeting Round Table in keeping with the unfavorable attitude expressed at this meeting. Approved a proposed annual award from the Associated Clinical Psychiatrists provided the donor would agree to the selection of the panel of judges by the APA. Authorized the Membership Committee to review all requests for exemption from the requirement of attendance at a Convocation to receive a Fellowship Certificate and to waive such attendance at its discretion when the facts warrant such action. Approved a recommendation by the House Committee that an office be reserved for use by the Officers or other official APA representatives during their visits to the Central Office, directed that it should be designated "The President's Room," and authorized $525 for furnishings. Authorized the House

Committee to spend upwards to $2475 for landscaping and incidentals for the Central Office. Directed that the new office building should be called the APA Central Office. Authorized the establishment of a petty cash account not to exceed $2000 at the Riggs Bank in Washington, D. C. with checks to be signed by the Business Manager and/or the Assistant Business Manager and approved a form Resolution from the bank designating it as a depository of the APA. Approved the Dartmouth Press as printers for the *Journal* during the next year. Authorized Mr. Davies to complete negotiations with the United Benefit Life Insurance Co. for a life insurance plan and to announce the availability of the plan and its terms to the membership. Authorized Mr. Davies to inform the membership that such an insurance plan is available and that its consideration is recommended. Authorized up to $1200 to print a supplement to the Membership Directory again this summer and directed that it should be folded so that it will fit into the new Biographical Directory. Directed that further information should be obtained by the Central Office in the matter of income tax deductions for psychiatric treatment to determine whether the policy indicated in a letter to the President, stating that private patients were required to list their symptoms to obtain such deductions, is an official regulation or an individual ruling from a branch office. Agreed to reaffirm its previous policy in the matter and not permit prepaid Life Memberships. Agreed that Dr. Hugh Carmichael should be requested to report on the AMA meeting on para-medical professions. Agreed to authorize the Secretary to suggest the names of all current members of the Committee on Child Psychiatry to the American Board of Psychiatry and Neurology as individuals qualified to assist in implementing the Board's proposal to grant certification in child psychiatry. Recommended that the Mail Ballot be validated as presented.

Council Meetings, May 10, 11, and 15, 1958. Approved the actions of the Executive Committee since the fall Council Meeting. Indicated appreciation to Dr. Ewalt for his work as Treasurer with a standing ovation. Approved the recommendation of the Committee on Membership that Judge George E. Bushnell, Helena T. Devereux, and Albert Deutsch be made Honorary Fellows of the Association and directed that these names be submitted to the membership for action. Approved, as presented, the recommendations of the Committee on Membership regarding applicants for admission and changes in status in the Association and directed that the list be submitted to the membership for action. Directed that an official statement be prepared recognizing Dr. Blain's selfless and dedicated service to the Association during his ten years as Medical Director; that the statement be read to the membership at the Annual Meeting; and that it be published in the *Journal* as a record for the future. (This statement is included in the Proceedings covering the Annual Dinner on Wednesday evening, May 14.) Recommended that the membership approve the establishment of the Intermountain District Branch, the Queens County (N. Y.) District Branch, and the Tennessee District Branch. Approved a Divisional Meeting in Detroit, Michigan on October 28-31, 1959. Approved a request from the Massachusetts Psychiatric Society for its discontinuance as an Affiliate Society. Nominated Dr. C. H. Hardin Branch for a second term on the American Board of Psychiatry and Neurology. Approved the recommendation of the Commission on Long Term Policies defining the status of the Committee on International Relations. Directed that at each Annual Meeting there should be an occasion devoted, as time permits, to the reception of foreign visitors; directed that the planning for this reception should be the joint responsibility of the Committee on International Relations and the Program Committee with the latter Committee having primary responsibility; and directed that where the names of foreign visitors are to be announced by the President, he should be provided, by the Central Office, with a list of the visitors, their positions in their own countries, and a statement of how their names are pronounced. Directed that the reception of foreign visitors during other times of the year is a function of the Central Office where a list of universities, hospitals and other places of interest to visitors should be compiled in addition to a list of names of those whom the visitors might wish to meet together with appropriate contacts with members of the Association. Directed that it should be the responsibility of the Central Office to communicate directly with Corresponding Fellows concerning the work of the Association, this being apart from the transmittal of the *Newsletter* and the *Journal*, and to ask Corresponding Fellows to make reports of special aspects of psychiatry in their own countries. Approved the recommendation of the Ethics Committee in October 1957 that Dr. Robert H. Reddick be expelled from the Association. Approved the signing of checks on all accounts and other management of the financial affairs of the Association by Dr. Robert H. Felix, the new Treasurer, effective May 16, 1958. Authorized

Mr. Austin Davies to continue to sign checks on all checking accounts of the Association, subject to present voucher controls or by any different system of voucher controls adopted by the treasurer on recommendation of the Auditor. Authorized Mr. Joseph Turgeon to continue to sign checks on the petty cash checking account in the Riggs National Bank in Washington, D. C. Authorized the Ad Hoc Committee on an Organization for Mental Hospital Personnel under APA Auspices to contact different groups to obtain a general reaction of psychiatrists and other disciplines to the proposal to create a body encompassing the non-medical mental hospital personnel which would consolidate an interdisciplinary approach to mental hospital problems under APA leadership. Approved continuance of the APA-Canadian Psychiatric Association Ad Hoc Committee. Approved in principle the general idea that a proper Certificate be posted by the Association in a hospital which has been rated by the Central Inspection Board. Authorized the acceptance of a grant by the Committee on Standards and Policies of Hospitals and Clinics from the Milbank Foundation totalling $3000 to make a planning study of the need for a complete study of APA Standards. Directed that all grants to the Association for research projects are subject the assessment of overhead charges, the details to be worked out in each case by the Medical Director. Elected Dr. Francis J. Gerty as Moderator for the next year. Elected Drs. Harry C. Solomon and Addison M. Duval to serve on the Executive Committee. Recommended to the membership the establishment of the Delaware District Branch, the Northern Indiana District Branch, and the Mississippi District Branch. Authorized the Treasurer to accept and hold funds for District Branches and Areas, with details to be worked out by the Business Office. Approved in principle, with the exact dates to be approved later by the Executive Committee, Divisional Meetings in Seattle in September 1959 and in New York City after October 31, 1959. Authorized the Committee on Aging to solicit funds to defray expenses for a national conference on the "State's and Community's Responsibilities for the Psychiatric Care of the Aged" and authorized the Committee and the Central Office staff to contact other appropriate national societies as possible co-sponsors if funds are obtained for the conference. Approved a recommendation by the Committee on Medical Education to handle the financing of Teaching Institutes in the same manner as the Regional Research Conferences and authorized the Coordinating Committee Chairman to charge against his budget the expenses of the Committee member who acts as representative at such Teaching Institutes. Amended and approved the proposal of the Committee on Mental Deficiency to advocate the concept that those institutions for the mentally defective which have psychiatric programs and medical leadership be recognized as psychiatric hospitals and that APA take proper steps to contact the appropriate State agencies to institute the steps necessary to accomplish this. Directed Drs. Frank J. Curran and Robert T. Morse to prepare a statement of sympathy to the family of the late Dr. Gale Walker, who was serving as Chairman of the Committee on Mental Deficiency at the time of his death. Approved the following Resolution proposed by the Committee on Private Practice: "Be it resolved that the American Psychiatric Association supports and encourages the inclusion of psychiatric illnesses in the basic contracts of all Blue Cross Plans throughout the country. Further be it resolved that this insurance should provide psychiatric hospital care to the insured on the same basis that this service is provided for surgical and medical patients." Approved a recommendation by the Committee on National Defense that the Committee on Aviation Medicine of the AMA be requested to give thought to the following problem: That sufficient Federal funds be made available to the Medical Division of the Civil Aeronautics Administration to(1) provide for medical investigation of civilian aircraft accidents, and(2) provide for psychiatric consultation as required to improve and preserve physical and mental standards for civil aviation. Approved continuation of the Committee on Constitution and By-Laws and defined the functions of the Committee. Accepted the recommendation of the Committee on Committees and did not approve a suggestion that a Committee on Studies for International Peace be established. Approved the following recommendations of the Committee on Committees: That the Ad Hoc Committee on Mental Hospitals become a Standing Committee assigned to the Coordinating Committee on Professional Standards; that the Ad Hoc Committee on Religion and Psychiatry become a Standing Committee assigned to the Coordinating Committee on Community Aspects of Psychiatry; that the Ad Hoc Committee in Liaison with the American Academy of General Practice become a Standing Committee assigned to the Coordinating Committee on Professional Standards; and that the Ad Hoc Committee on Education in Public Hospitals in Liaison with the American Psychoanalytic

Association be continued. Approved the following appointments to Constitutional Committees by the Incoming President: *Board of Tellers*, Dr. Evelyn Ivey, Chairman; Dr. John E. Davis, and Dr. Ronald H. Kettle; *Committee on Membership*, Dr. Manuel Pearson, Chairman; Dr. Dick McCool, 1961; and Dr. Richard K. Graff, 1961; *Committee on Arrangements*, Dr. Theodore Dehne and Dr. Lauren Smith, Co-Chairmen; Nominating Committee, Dr. D. Ewen Cameron, Chairman; Dr. Lester Rudy; Dr. Norman Brill; Dr. Titus Harris; and Dr. Seymour Vestermark. Approved the continuance of the Ad Hoc Committee on Increasing Responsibilities of the APA upon recommendation by the Incoming President. Elected Dr. Alexander Simon to fill the vacancy on Council which resulted from the election of Dr. C. H. Hardin Branch as Secretary. Approved the recommendation of the Medical Director to revise the procedure for preparing the annual budget and authorized the Executive Committee to act on the budget proposed by the Budget Committee. Authorized the acceptance of a grant of $27,000 from the National Institute of Mental Health for the General Practitioner Education Project. Approved an amendment to the budget upon recommendation by the Medical Director to permit funds held in the Reserve Fund of the Architectural Study Project to be used for the salary of the Project Director after Sept. 1, 1958. Reiterated its previous approval of the action by the Executive Committee which did not approve a proposal for prepaid Life Memberships. Meeting in Executive Session, the Council approved unanimously the choice of Dr. Mathew Ross as successor to Dr. Blain in the position of Medical Director, effective September 1, 1958.

WILLIAM MALAMUD, M.D.,
Secretary

MESOPOTAMIAN MEDICINE

A system of medicine that was dominated by magic and religion, and the purpose of which was to rehabilitate an individual and to reconcile him with the transcendental world, obviously included psychotherapy, the soul-searching of a patient who was convinced that he suffered because he had sinned had a liberating effect: and the rites performed and the words spoken by the incantation priest had a profound suggestive power. Mesopotamian medicine was psychosomatic in all its aspects.

—HENRY E. SIGERIST
A History of Medicine

TREASURER'S REPORT: AMERICAN PSYCHIATRIC ASSOCIATION

The news this year is substantially better than last year. This year the auditor's report reads "The operations of the Association for the fiscal year ending March 31, 1958, exclusive of expenditure for the renovating and furnishing of the central office home, resulted in gains aggregating $39,294.16." Again, I remind you of the maiden's promise, the picture looks fair but not as good as this would indicate.

In spite of the recession, our stocks have increased in value and while their purchase value or book value is $86,347.16, on the day of the audit the market value was $113,499.88.

The general fund showed a net gain for the year of $775.60.

The special purpose fund which includes all of our activities, the Journal, the various Hospital Institutes, etc., showed a fund gain of $2,544.92. This favorable balance as opposed to substantial unfavorable balances in previous years, is due to the fact that the Central Inspection Board income was only $2,500.00 less than expenditures in this past year, and the Hospital Service Institute almost broke even. Robbie's rotating publication fund made over $11,000.00. The staff deserves credit for their skillful operation of our business this year, because last year the special purpose fund lost $70,000.00. Also in this year, gifts to the restricted fund exceeded expenditures by $8,437.64. Since this latter figure all goes out, eventually it is a temporary gain and could in any year reflect a gain or loss depending on the timing of the receipt of the grants from various donors. At the recommendation of a Special Committee, Council did set up a procedure for charging overhead to these special funds which has helped the general income picture.

The new home has been renovated completely and occupied. Rather than taking out a mortgage, as authorized by Council, it was decided that we could manipulate our reserves and resources and pay for the renovation of the home. This has been done so you own the home clear and free and it is a substantial asset. It may be that at the end of this budget year and perhaps in the following one, a short term loan of sixty days to meet payrolls will be necessary but this will probably not be true. If so, this is far better than having a twenty year mortgage on the home with interest to pay. I believe the Association owes a great debt of gratitude to the very capable efforts of the House Committee who handled skillfully and economically the renovation and furnishings of the new home and I think you will all be proud of it when you visit.

The Retirement Plan for the members is fully installed and is now part of our operation. I believe of the accomplishments of the Association during my period in office this is the one I feel most happy about.

A new auditing and business system has been installed and seems to be operating as well as a business system can with the split offices we have. A business representative in the Washington office has been appointed to assist Mr. Davies with the operations in the Washington office and thus relieve Dr. Blain and his staff of many onerous administrative details.

With the financial picture thus stabilized and with revenue from increased dues coming in this year, and incidentally none of this revenue is reflected in the above mentioned financial report, the Association seems to be on a good stable financial basis and if the operations can be kept within the new level of income there should be no great financial crises in the years to come.

At this point I want to thank the many members of the staff and the Association who have helped me during my years as your Treasurer and I am happy that I can leave the finances and business of the Association in a sound condition.

JACK R. EWALT, M.D.,
Treasurer

STATEMENT OF CONDITION
MARCH 31, 1958

Assets

General Fund :		
Cash :		
Checking accounts	$ 79,857.17	
Custodian bank account	1,769.45	
Savings bank accounts	11,313.69	
Petty cash	1,335.00	
		$ 94,275.31
Accounts Receivable		10,438.64
Marketable securities, at indicated value (Schedule A-1)— Book Value—$86,347.16		113,499.88
Land and building, at cost		107,063.05
		$325,276.88
Deduct : Cash and marketable securities allocable to Restricted Funds (below)		73,574.97
Total General Fund		$251,701.91
Special Purpose Funds :		
Cash :		
Checking accounts	$ 28,808.25	
Petty cash	10.00	
		$ 28,818.25
Renovation and furnishing costs of Central Office Home—in process		121,640.46
Total Special Purpose Funds		$150,458.71
Restricted Funds :		
Cash :		
Checking account	$ 356.98	
Savings accounts	48,725.66	
		$ 49,082.64
U. S. Savings Bonds—for awards, at redemption value (Principal amount $20,600)		18,272.20
Marketable securities—for awards, at donated value		5,932.73
Cash and marketable securities allocated from General Fund (above)		73,574.97
Total Restricted Funds		$146,862.54
		$549,023.16

LIABILITIES AND SURPLUS

General Fund:		
Accounts payable	$ 16,223.60	
Deferred income—1958/59 dues collected	82,245.00	
Deferred credit—overhead	4,809.46	
		$103,278.06
Unrestricted Surplus—(Exhibit B)	$147,000.84	
Deduct: Advances to Special Purpose Fund on account of renovation and furnishing costs of Central Office Home (below)	25,729.71	
		$121,271.13
Valuation reserve—Marketable securities		$ 27,152.72
Total General Fund		$251,701.91
Special Purpose Funds:		
Accounts payable—American Journal of Psychiatry		$ 8,095.38
Principal balances (Exhibit B)		116,633.62
Advance from General Fund on account of renovation and furnishing costs of Central Office Home (above)		25,729.71
Total Special Purpose Funds		$150,458.71
Restricted Funds:		
Principal balances (Exhibit B)		$146,862.54
Total Restricted Funds		$146,862.54
		$549,023.16

AMERICAN BOARD OF PSYCHIATRY AND NEUROLOGY, INC

In conformance with the request of The American Psychiatric Association, The American Medical Association, and The American Neurological Association, we are submitting the following account of the activities of the American Board of Psychiatry and Neurology, Inc., since the last report to the Associations by letter dated April 15, 1957.

The Board consists at present of the following members:

Appointed by The American Psychiatric Association :

Dr. David A. Boyd, Jr. (term of office expires December, 1959)
Dr. C. H. Hardin Branch (term of office expires December, 1958)
Dr. Henry W. Brosin (term of office expires December, 1961)
Dr. William Malamud (term of office expires December, 1960)

Appointed by the American Medical Association :

Dr. Hugh T. Carmichael (term of office expires December, 1961)
Dr. Russell N. DeJong (term of office expires December, 1958)
Dr. L. M. Eaton (term of office expires December, 1960)
Dr. Francis J. Gerty (term of office expires December, 1959)

Appointed by the American Neurological Association :

Dr. Harvey Bartle, Jr. (term of office expires December, 1959)
Dr. Knox H. Finley (term of office expires December, 1961)
Dr. Francis M. Forster (term of office expires December, 1961)
Dr. Paul I. Yakovlev (term of office expires December, 1958)

At the annual meeting of the Board in December, 1957, the following officers were elected :

Dr. Russell N. DeJong, President
Dr. Paul I. Yakovlev, Vice-President
Dr. David A. Boyd, Jr., Secretary-Treasurer

The annual meeting of the Board was held in New York City in December, 1957. At this time, 251 candidates were examined by the Board. Of this number, 129 were certified in Psychiatry, 16 in Neurology, and none in Neurology and Psychiatry.

When the Board met in San Francisco, California, in March, 1958, 224 candidates were examined. Of this number, the Board certified 135 in Psychiatry and 13 in Neurology, and none in Neurology and Psychiatry.

Since its inception, the Board has received 8,706 applications. Some of these are still under consideration. The total number of diplomas issued by the Board to date is 6,178. Of this number, 4,784 are certified in Psychiatry, 418 in Neurology, and 976 in Neurology and Psychiatry.

DAVID A. BOYD, JR., M. D.,
Secretary-Treasurer

OPINION

Nothing is more curious than the self-satisfied dogmatism with which mankind at each period of its history cherishes the delusion of the finality of its existing modes of knowledge. Sceptics and believers are all alike. At this moment scientists and sceptics are the leading dogmatists. Advance in detail is admitted : fundamental novelty is barred. This dogmatic common sense is the death of philosophical adventure. The Universe is vast.

—ALFRED NORTH WHITEHEAD

NEWS AND NOTES

Confinia Psychiatrica.—This new quarterly publication has now issued two numbers during the current year. It is edited by Drs. H. Heimann and Th. Spoerri in Bern and is published by S. Karger, Basel and New York. Its field is represented under the title, Borderland of Psychiatry.

There is an impressive board of collaborators and co-editors representing different related fields. Among the American psychiatric co-editors are E. Kahn of Houston, Tex., and E. W. Straus of Lexington, Ky.

The contents of the initial issue would indicate the nature of the coverage. There is an illustrated article on the work of the artist Edward Munch in relation to anxiety, an article on the psychological analysis of John Calvin's personality by E. Grossmann, one by H. Delgado on the psychopathology of schizophrenia, another by T. A. Pasto on the schizoid bias in visual art; a discussion of the theories of cerebral function in the 19th century from Gall to Meynert by E. Grünthal, and finally Eugen Kahn's comment on the readability of scientific texts: understanding and understandability.

Institute on Chronic Schizophrenia, Osawatomie State Hospital.—This Institute will be held at the hospital in Osawatomie, Kan., Oct. 1 to 3 inclusive, sponsored by the hospital in co-operation with the Menninger Foundation and supported by the National Institute of Mental Health and the Smith, Kline & French Laboratories.

It will be national in scope with outstanding psychiatrists, psychologists and other behavioral scientists participating.

North Shore Hospital Lecture Series.—Dr. Samuel Liebman, medical director, announces that the 9th annual lecture series for 1958-59 will be on "Emotional Forces in the Family." These lectures will be given on the first Wednesday of every month from October 1958 through June 1959 at the North Shore Hospital, 225 Sheridan Rd. in Winnetka, Ill., at 8:00 P. M.

The American Academy of General Practice has approved attendance at this program as meeting their standards for postgraduate training.

The series of lectures will be published as a book by the J. B. Lippincott Company of Philadelphia. All royalties from the sale of the book will be assigned to The American Psychiatric Association.

Delaware Abolishes Capital Punishment.—On April 2, 1958, Governor J. Caleb Boggs of Delaware signed a bill abolishing capital punishment and substituting life imprisonment. Thus Delaware became the seventh state to legislate against the death penalty. Michigan was first in 1847, Rhode Island in 1852, Wisconsin 1853, Minnesota 1911, North Dakota 1915, and Maine in 1876, only to restore it in 1883, and finally abolish it in 1887.

Nine other states have abolished capital punishment for short periods only to reinstate it, usually after a particularly heinous murder. These states are Iowa, Kansas Colorado, Washington, Oregon, South Dakota, Tennessee (except for rape) Arizona and Missouri.

The Delaware bill was introduced in the Senate in 1955, passed by that body in 1957, and by the House of Representatives in March 1958.

Conflict and World Peace.—Dr. John A. Aita calls attention to the fact that three organizations have recently been inaugurated with the purpose of furthering scientific research on conflict and world peace. These are: 1. Peace Study Institute, 946 Goodfellow Blvd., St. Louis 12, Mo. 2. The Committee on International Tensions, formed at the Society for the Study of Social Problems, 12229 Sorrento, Detroit 27, Mich. 3. Committee on International Relations in the Society for Psychological Study of Social Issues, 65 Plympton Street, Cambridge 38, Mass.

Those interested should write to any of these organizations for further information.

Lynchburg Training School Conference.—Dr. Benedict Nagler, Superintendent of the Lynchburg Training School and Hospital, Colony, Va., announces a conference on Research and Training in the Field of Mental Retardation to be held at The Training School on September 11 and 12. The Conference has been made possible by a Mental Health Project Grant from the Public Health Service. Outstanding leaders in psychiatry, neurology, psychology, education, social work, and nursing will participate.

Further information may be obtained from Dr. Nagler.

American Electroencephalographic Society.—At its annual meeting in Atlantic City, June 13, 1958, the Society elected the following officers: president: W. T. Liberson, M.D.; president-elect: Arthur A. Ward, M.D.; treasurer: Isadore Zfass, M.D.; secretary: Jerome K. Merlis, M.D.

Foundations' Fund for Research in Psychiatry.—The Foundations' Fund wishes to announce that October 15, 1958, is the next deadline for the submission of completed applications for research fellowships in psychiatry, psychology, sociology, neurophysiology, and other sciences relevant to mental health. The deadline following this will be January 15, 1959.

The next deadline for receipt of applications for research grants-in-aid is December 10, 1958. Those interested are invited to write to Foundations' Fund for Research in Psychiatry, 251 Edwards St., New Haven 11, Conn.

Conference on Insulin Treatment.—An International Conference on Insulin Treatment in Psychiatry has been arranged for the purpose of presenting recent advances in the basic aspects and the clinical uses of Sakel's discovery. There will be morning and afternoon sessions on Friday, October 24, and a morning session on Saturday, October 25.

This meeting, which is co-sponsored by S. Bernard Wortis, M.D., New York University, D. Ewen Cameron, M.D., McGill University, and Jacques S. Gottlieb, M.D., Wayne State University, will take place at the New York Academy of Medicine, Fifth Avenue and 103rd Street, New York City. All interested individuals are invited to attend. For further details write to Dr. M. Rinkel, 479 Commonwealth Avenue, Boston 15, Mass., or Dr. A. K. Bernath, 985 Fifth Avenue, New York 21, N. Y., or Dr. H. E. Himwich, Galesburg State Research Hospital, Galesburg, Ill.

Eastern Psychiatric Research Association, Inc.—The Association's 3rd annual meeting will be held in New York, October 23-25, 1958. The first two sessions are to be held at Brooklyn State Hospital, N. Y., and the third session at the Waldorf Astoria Hotel, N. Y.

The following are some of the topics to be discussed: Various Types of EST and Their Modifications; Present Status of Insulin Therapy; of Co_2 Therapy; Endocrine Therapy; Appraisal of Various Psychotherapeutic Methods; of Milieu Therapy; of Drug Therapy; Statistical Analysis of Mental Illness in the World; The Changing Aspects in the Care, Treatment and Management of the Psychoses of the Aged; and a symposium on Building Stones for a Biologic or a Preventive Psychiatry, which will cover biochemical, personality, conditioning and social psychiatry aspects.

Health Resources Advisory Committee Appointments.—John S. Patterson, Acting Director of the Office of Defense Mobilization has announced the appointment of three additional members to the Health Resources Advisory Committee. They are: Leo H. Bartemeier, M.D., Medical Director, Seton Institute, Baltimore, Md.; John Z. Bowers, M.D., Dean, University of Wisconsin School of Medicine, Madison, Wis., and George M. Fister, M.D., Regent, University of Utah, Ogden, Utah.

American Psychosomatic Society.—The American Psychosomatic Society will hold its 16th annual meeting at Chalfonte-Haddon Hall in Atlantic City on Saturday and Sunday, May 2 and 3, 1959.

The program committee would like to receive titles and abstracts of papers for consideration for the program no later than December 1, 1958. The time allotted for presentation of each paper will be 20 minutes.

Abstracts, in octuplicate, should be submitted for the program committee's consideration, to Dr. Milton Rosenbaum, 265 Nassau Road, Roosevelt, N. Y.

SOCIETY FOR CLINICAL AND EXPERIMENTAL HYPNOSIS.—The Society will hold its annual meeting in Chicago at the Morrison Hotel, October 29-31, 1958. The program will include breakfast seminars, round-table luncheons, panel discussion and formal presentations.

Immediately preceding the annual meeting, the Institute for Research in Hypnosis of the Long Island University Postgraduate School will hold its annual workshop in clinical hypnosis, October 27-29, at the Morrison Hotel.

For further information write to the Administrative Secretary, Society for Clinical and Experimental Hypnosis, 750 N. Michigan Avenue, Chicago 11, Ill.

APA TEACHING INSTITUTE.—The first Teaching Institute to be held by The American Psychiatric Association will take place on Oct. 10 and 11, 1958. It will be held under the auspices of McGill University. Papers on the undergraduate medical curriculum will be presented on the first day, and the second day will be devoted to presentations concerning the post-graduate teaching of psychiatry. All APA members are invited to attend. The registration fee will be $5.00.

For further information write to Dr. D. Ewen Cameron, Chairman of the Department of Psychiatry, McGill University, 1025 Pine Avenue West, Montreal, P. Q.

DESIGN FOR MENTAL HEALTH.—The New York State Department of Mental Hygiene has issued a booklet entitled *Design for Mental Health*, which deals with the general problem of mental health and outlines New York State's complex mental hygiene program. The emphasis is on the "total approach" to public mental health, the operations of the Department embracing both community and institutional services, encouraging psychiatric research, training psychiatrists and other psychiatric specialists, and undertaking public education programs to promote understanding of mental illness and development of mental health.

The new brochure, prepared to meet the constant demand for information about the state's program, may be obtained without charge from the office of Mental Health Education and Information, Department of Mental Hygiene, 217 Lark St., Albany, N. Y.

TENTH MENTAL HOSPITAL INSTITUTE.—The APA Mental Hospital Service announces that the 10th Mental Hospital Institute will be held at the Hotel Muehlebach, Kansas City, Mo., October 20-23, 1958. Topics under discussion will include the needs, training and recruiting of personnel of the mental hospital; mental illness and prepayment insurance plans; recent developments in the treatment of alcoholism; housekeeping problems of the mental hospital, and intensive treatment of the senile psychotic.

For information regarding enrollment in the Institute write APA Mental Hospital Service, 1700 18th Street, N.W., Washington 9, D. C.

BOOK REVIEWS

Prisoners of Liberation. By *Allyn* and *Adele Rickett.* (New York: Cameron Associates, Inc., 1957, pp. 288. $4.75.)

Although there have been many descriptions of Chinese Communist "thought reform" (or "brainwashing") written by those who have experienced the ordeal, *Prisoners of Liberation* is unique in one respect: it is the first Western account of a "successful" reform experience. The authors, a young American married couple, emerged from 4 years of imprisonment convinced not only of the validity of Communist doctrine, but also of the basic virtue of the penal thought reform program. The tone of their report thus contrasts sharply with the combination of confusion and outrage which most Westerners have expressed (either in their writings or in interviews with those of us who have examined them) soon after their release. The Ricketts are true ideological converts, and their book is a record of their conversion.

As such, it presents a vivid description of the prison reform process: the physical and emotional pressures of the early stages, followed by periods of relaxation and "leniency"; the complex determinants of the developing confession; and the longer-term "working through" of the "reeducation" phase. One learns how the day-to-day prison routine can develop into a treasured emotional experience, offering Westerners a unique sense of "belonging" among Chinese people, as well as an opportunity to atone personally for the long history of Western aggrandizement in China. And there is impressive evidence that such factors as identity diffusion (both pre-existing and induced) as well as susceptibility to powerful feelings of guilt and shame, had a good deal to do with the two "conversions": one is especially struck by the authors' experience of shame for and alienation from their country, whose policies they considered to be out of touch with the Chinese scene.

Unfortunately the book stops far short of a recording of the inner drama which has always characterized religious and ideological conversion, whether told by Saint Augustine or Arthur Koestler. One gains the impression that the urge to convey the conversion "message" in intellectual terms takes precedence over an introspective examination of the search for emotional reality and meaning. The full impact of the authors' experience does emerge in a more indirect fashion—through their strikingly simple polarization of good and evil, and in their unconvincing attempt to surround their pre-prison contacts with professors and diplomats with an aura of espionage. But in spite of all this, one cannot help but be impressed by the struggle for integrity which the book represents. This is especially poignant in the epilogue—a painful reappraisal 18 months later, in which the authors cling to their reform ethos but show a beginning ability to recognize distortions in the information supplied to them by their former captors.

No such struggle occurs, however, in the glib and pretentious "publisher's introduction," and this rather remarkable document will be of special interest to psychiatrists. Here we are told that "various experts" were consulted, because "the range of human and social problems involved in this astonishing story goes far beyond any one discipline"; but these seem to consist only of "an eminent social scientist and psychiatrist" and a "practicing psychiatrist and teacher" (each apparently just one person). The former is quoted in an impassioned defense of the authors' patriotism, while the latter tells us something even more astounding:

> The educational processes followed by the Chinese include a fascinating mixture of enlightened penal methods, work and occupational therapy, group therapy, and conventional methods of study. In reading this account one is struck by the similarity of some of these Chinese methods to the procedures developed in the early years of the Soviet Union by Makarenko in his pioneering work with juvenile delinquents. . . . These principles were applied in the framework of a humanitarian, socialist morality which guided their approach to the individual prisoners. It is my opinion that this morality was the decisive force in their ability to tame, persuade and reeducate hundreds of thousands of anti-social elements. . . . The people who stand out most clearly, of course, are the Ricketts themselves. In their basic honesty, courage, charity, and humanity they embody our finest American traditions, and we can be proud of them and of the land which produced them.

Assuming that these "psychiatric consultants" are not mythical figures (they and the writer of the introduction remain anonymous), their comments can serve as a reminder of the hazards of our profession. By this I mean the extent to which our private ideologies can color and distort our clinical judgment; and

being human, none of us is completely free of a sacred area of commitment and belief. A loaded issue such as thought reform does us the service of making this most clear: this unique "publisher's introduction" thus finds "enlightened" and "humanitarian" a program which is distinguished by a combination of coercion, exhortation, and "therapy" in its profound manipulation of human emotions. I would feel that this is quite the reverse of "humanitarian." Our task as psychiatrists would be to recognize and critically evaluate any such manipulative psychological combinations, whether they occur in Chinese thought reform, in our national political life, or even within our own profession. This book is well worth reading for the important issues which it raises.

ROBERT J. LIFTON, M. D.,
Harvard University.

THE SLOW LEARNER. Some Educational Principles and Policies. By *M. F. Cleugh.* (New York: Philosophical Library, 1957, $3.75.)

THE EDUCATION OF YOUNG CHILDREN. By *D. E. M. Gardner.* (New York: Philosophical Library, 1957, $2.75.)

THE YOUNG HANDICAPPED CHILD. By *Agatha H. Bowley.* (Baltimore, Md.: Williams & Wilkins Co., 1957, $3.50.)

These three small volumes together give an instructive picture of the state of special and nursery school educational theory in Britain today. Dr. Cleugh's excellent book undertakes to lay the basis for the organization and direction of special education by school authorities. Though written for the British reader it has many instructive insights pertinent to our own situation. Her discussion acquaints us with the British arrangements for the education of the retarded, presently organized in special schools, special classes and separate classes for backward normal children, supplemented by the unique "remedial centres" which the normal but backward child may attend temporarily or after regular school hours. The more severely retarded children are transferred to Occupation Centres, an interesting type of institution outside the jurisdiction of the school authorities. But one of the virtues of Dr. Cleugh's approach is her serious interest in helping the normal but educationally backward child within the ordinary class-room setting. Her views reflect a nice balance of wise judgment and good sense, with a sensitive feeling for the subtleties of prejudice, tradition and morale which operate in the field. "There are many reasons why children fail to learn," she writes, "and low intelligence is only one." She maintains a sound critical attitude toward the mechanical use of the I.Q. and places her emphasis on the need for individualizing the educational process, on width and flexibility, on the cultivation of sympathetic attitudes toward individual differences. Special educators need special training and should enjoy special prestige; teachers must be enlisted not only to teach the three R's, but for the equally important task of helping children overcome their handicaps. The mistaken generalization that mongols are "clearly uneducable" is an isolated fault, but suggests that some consideration of the importance of medical and psychological evaluation of retarded children could enlighten and help the special teacher in the field.

The even smaller book by D. E. M. Gardner, Head of the Department of Child Development of the University of London Institute of Education is addressed to nursery school teachers and consists largely of quite reasonable suggestions on the management of the 2-5 year old group in British nursery schools. Though it lacks explicit theory, its trend is definitely toward the exploitation of spontaneous play interests, with respect for the individuality of the child and with an avoidance of external discipline, drilling or academic emphasis. Susan Isaacs is the most quoted author and psychoanalytic influences are reflected in her recommendation that aggressive children be helped to find satisfaction in "legitimate destruction." She believes that a moderate amount of open masturbation is natural from two to five, after which it should normally become furtive. "If the child is not attempting to conceal it by then, it may be a sign that he needs psychological help." Nursery schools in Britain are developing under the Local Education Authorities; though they still involve only a small percentage of young children, they are besieged by long waiting lists and many more are needed. They satisfy the urgent demand of parents for safe and adequate play opportunities, social involvement and sound psychological and educational experiences. The British nursery school movement provides an instructive example for similar developments in our country.

The volume by Agatha Bowley (with a section by L. Gardner) deals with the education and management of the blind, cerebral palsied and deaf child. It is refreshing in its simplicity, directness and practicality, has a good social orientation, and sees the handicapped child in relation to the often harassed and over-burdened family. It recognizes the importance of social acceptance and social integration for the child, and does not over-emphasize the mother-child relationship. The training suggestions are convincing and often charming. The educational process is related to every-day experience. Dr. Bowley is expert on the subject of intelligence evaluation, and maintains a cautious attitude toward formal testing, especially for the child with multiple handicaps. The book is the product of dedicated observation and involvement, with an explicitly religious motivation. At the same time it accepts the Oedipus complex as "the age-old and universal conflict," assumes the presence of innate aggressive tendencies, and recommends outlets for anal destructive drives. A medical dimension is lacking, and no distinction is made

between the hyperactivity of the merely tense and anxious, and of the brain-injured child. The substance of the book is good pedagogy, however, and its overall influence is sure to be useful.

JOSEPH WORTIS, M. D.,
Jewish Hospital of Brooklyn, N. Y.

FADS AND FALLACIES IN THE NAME OF SCIENCE. By *Martin Gardner*. (New York: Dover Publications, 1957. Pp. 363. Paper. $1.50.)

Since they laughed at Christopher Columbus and persecuted Galileo, every crackpot can justify his isolation by claiming persecution. We are so afraid of being charged with having "closed minds" that we sometimes open them at both ends. While truth may indeed be relative, it is a fact that certain things are consistently rejected by competent and sober scientists. No appeal to liberalism or freedom of thought can support iridodiagnosis, the quest for Bridey Murphy, the effectiveness of an orgone box, the validity of dianetics or the flatness of the earth.

In this absorbing narrative Martin Gardner assembles a rare compendium of fads, fallacies, frauds and fantasies—not only medical and psychiatric ones, but also a roster of phoney ideas in geology, astronomy, physics and archeology. The author does not explore the psychiatric implications of human gullibility, but he calls attention to the strange way in which zealots can enroll in their armies an astonishing number of sophisticated intellectuals. The conventional idea is that if the paranoic is the king of a cult, his court is composed of psychopaths and idiots. This is an oversimplification. Some pretty bright men buy stock in some pretty zany ideas.

Clifton Fadiman swallowed Velikovsky and Arthur Koestler thought that Rhine was ushering in a veritable Copernican revolution. William Streig raised money to defend orgone therapy, Luther Burbank insisted that plants were telepathically responsive to love and hate, and Bruce Barton believed in zone therapy. Posture and exercise fanatics were supported at various times by John Dewey, Aldous Huxley and Sir Stafford Cripps. Earnest Hooton wrote that physique could be correlated with criminal tendencies, Andrew Ivy had faith in Krebiozen for cancer, Roger Babson hoped to find a gravity screen and Upton Sinclair thought that fasting improved the health and combatted disease.

In the past, the yellow journals propagated the scientific moonshine. Today some good magazines and first class publishers give space to blackstrap molasses, Bates eye exercises, dianetics, flying saucers, colliding worlds and Bridey Murphy.

Gardner gives some criteria for diagnosing the crank. He spreads his net so wide that he pulls in a few fish on everybody's favorite list. Here perhaps Gardner comes close to producing guilt by association. For instance he includes the Szondi test in this book—entitled, remember, *Fads and Fallacies*, though he says he is not competent to discuss the test. While he exempts some items from the stigma of crack-pottism, he lumps them in chapters with cults and phonies so that the overall impression of those items is a bad one. Thus, included in this book are technics of muscle relaxation, graphology, homeopathy, parapsychology, general semantics, and a number of religious beliefs. Gardner places these a few notches higher than chiropractic, fletcherism and lawsonomy—but you have to read the book slowly to notice the differentiation.

As a chronicle of human gullibility, though, the book is superb. You read it eagerly wondering what triumph of noodleheadedness will turn up on the next page. Mr. Gardner writes with clarity and holds your interest. Unfortunately our specialty contributes more of the material in this text than any other branch of medicine. There are, to be sure, some cults relating to eyesight, diet, cancer, and sex—but in the long procession of medical eccentricity, ideas about the human mind lead the parade.

HENRY A. DAVIDSON, M. D.,
Cedar Grove, N. J.

PAPER ELECTROPHORESIS. Ciba Foundation Symposium. Edited by *G. E. W. Wolstenholme*, and *Elaine P. P. Millar*. (Boston: Little, Brown & Co., 1957, $6.75.)

The Ciba Foundation's symposium on Paper Electrophoresis contains short papers and discussions from a meeting attended by several authorities in this field. The contents do not give a comprehensive review of all aspects of this technique, but deal with certain particular points. In common with many of the reports of Ciba Symposia, the discussions which follow the papers contain a great deal of additional and valuable information.

Four papers deal with some of the different types of apparatus which are used, and some of the problems involved in the design of apparatus. Other communications deal with the use of paper electrophoresis in the diagnosis of some canine diseases, in the determination of ratios of albumin to globulin, in the analysis of human haemoglobin, in the observation of certain effects of ACTH and cortisone on protein-bound polysaccharides in serum, and on the future of the technique as applied to clinical research and routine analysis.

Probably the most valuable parts of the volume, though, are in those papers and discussions which deal with some of the difficulties and errors encountered in the use of paper electrophoresis, in the interpretation of the patterns, and in the analysis of the separated materials. It is most important that those who use paper electrophoresis be aware of the possibilities of error in measurements, and the material in this volume is excellent for its comments on these errors.

This is not a manual which gives instructions for the use of the technique, but it is a book which can be strongly recommended to all those who use paper electrophoresis either for research purposes or for routine analysis.

D. W. CLARKE, M. D.,
University of Toronto.

HORMONES, BRAIN FUNCTION, AND BEHAVIOR. Edited By *Hudson Hoagland.* (New York: Academic Press, Inc., 1957. pp. 257. $7.00.)

This is the report of a two-day conference on neuroendocrinology held in May 1956 at Arden House on the Hudson, New York. The papers and discussions reprinted are as follows: R. A. Cleghorn, "Steroid hormones in relation to neuropsychiatric disorders"; D. M. Woodbury *et al.*, "Influence of adrenocortical steroids on brain function and metabolism"; H. W. Elliott *et al.*, "In vitro effects of steroid anesthetic on brain metabolism"; W. C. Young, "Genetic and psychological determinants of sexual behavior patterns"; A. C. Goldstein, "The experimental control of sex behavior in animals"; D. W. Woolley, "Serotonin in mental disorders"; S. Udenfiend *et al.*, "Biochemical studies on serotonin and their physiological implications"; B. B. Brodie *et al.*, "On a role for serotonin and norepinephrine as chemical mediators in the central autonomic nervous system"; A. Hoffer, "Adrenalutin as a psychomimetic agent"; J. R. Tata, "Metabolism of L-Thyroxine and L-3:5:3¹-triiodothyronine by brain tissue preparations"; C. P. Richter, "Decreased appetite for alcohol and alcoholic beverages produced in rats by thyroid treatment"; R. W. Rawson *et al.*, "The thyroid hormones and their relationships to mental health." There are author and subject indexes.

A most valuable volume to all who have an interest in the latest work in neuropharmacology.

ASHLEY MONTAGU, PH. D.,
Princeton, N. J.

VERSTEHENDE PSYCHOLOGIE. By *Hans W. Gruhle.* (Stuttgart: Georg Theime Verlag; New York: Intercontinental Medical Book Corporation, 1956, 633 pp. $11.40.)

This voluminous work is designated as a text book (Lehrbuch) and is also sub-titled, The Teaching of Experience, (Erlebnislehre), but after reading its 600 pages I am as unclear as before what "Verstehende Psychologie" means and do not know how to translate the title. "Verstehen" usually means to understand but on the fly-leaf the reader is told that in this instance the word is used in the sense of "einfuehlen" which means to empathize or to assess another person's feelings by trying to imagine one's own feelings in like situations. The word "verstehen" is not even indexed although there are many cross references for "einfuehlen." The author offers no further definition or explanation of the title, or the concept, but the general tone of the book is intellectual rather than empathic. There are many statements about what does not belong to the field of this particular psychology but two-thirds of the book are devoted to the role of this psychology in other sciences, such as philosophy, history of art, jurisprudence, to mention a few.

The last chapter is devoted to the "Science of Education" and in its 10 pages this reader, at least, expected to learn something about learning theory, personality development and similar pedogogical considerations, but this is not the case. Most of these pages are devoted to generalities and advice to teachers, for instance how to control rambuctious adolescents. To quote, "the teacher must create situations of such logic that the students find themselves forced to accept his guidance." Other topics which according to the author do not belong to psychology, as formulated by him, are such considerations as psychological determinism, the search for meaning in compulsive ideas, and the author also doubts the wisdom of exploring the problem of motivation, of which he says that all one can do is to understand it in terms of a Gestalt or the total character of a person. In the chapter on natural sciences, we are told that psychology is only concerned with animals' souls, and while the question whether animals have souls is considered pertinent, reflexology or Pavlov's work is not. Instinct as phenomena or as a theory also is beyond the realm of "Verstehende Psychologie."

No evidence is apparent in this book that any delineation between normal or adaptive behavior and psychopathology might be important or has ever been attempted. Some superficial generalizations are found, however, such as that "psychopaths suffer only from a disharmony in their being" or that "the more intelligent and the more learned a man is the more will intellect become the source of his action, but this does not hold for women." The following 'psychological' classification of criminals consisting of 4 groups further documents the superficial character of the author's concepts: 1. criminals by inclination; 2. criminals because of weakness; 3. criminals because of passion; and 4. criminals for the sake of honor and conviction.

On the positive side there are interesting and erudite discourses on history, philosophy, religious thought and the like, but all this remains on a rather anecdotal and descriptive level rather than conveying any "verstehen." A great deal can be learned from this book about matters that are worthwhile studying or speculating about from a psychological viewpoint but the appropriate psychological principles and methods cannot be learned from this textbook.

STEPHEN FLECK, M. D.,
Yale University School of Medicine.

DESSINS ET PEINTURES DES ALIÉNÉS. Analyse au point de vue psychiatrique et artistique. By *Irène Jakab, M. D., Ph. D.* (Maison d'Edition de l'Académie des Sciences de Hongrie. 1956, pp. 145.)

The author in 140 pages with 131 illustrations (of which 18 are in full color) analyses the drawings and the paintings of mental patients from Pecs Hospital for Mental and Nervous Disorders. The artistic and psychiatric values of 131 of the most characteristic of the collection totaling 2,000 pieces are studied. In this book, composed of 9 chapters, the author starts with clinical observations with explanatory statements of drawings and paintings by schizophrenics, manic-depressives and patients suffering from alcoholic hallucinosis. This is followed by a discussion of the artistic value of the drawings and paintings by these mental patients.

The author analyses the manifest and symbolic content, the composition, style, means of expression (lines, colors, light effects, proportions, etc.) of the art work of these patients. The spontaneity and periodicity of these productions in regard to their psychosis is then elaborated. In Chapter 4 Dr. Jakab evaluates the diagnostic qualities of the drawings in the different pathological entities. In the next chapter she studies the characteristics of the hallucinatory representations. She then examines in a very short two-page chapter the prognostic significance of the style and the technical qualities of these productions in regard to the various phases of the malady. Before summarizing her findings Dr. Jakab compares in the last two chapters the art work of mental patients to drawings by children, to archaic drawings and drawings by primitive people.

Dr. Jakab concludes that art work of mental patients is essentially abstract and symbolic, comparable to those of surrealists, with the only difference between the two being the lack of artistic composition in the former. She explains the reasons for this lack in the schizophrenics and the manics. She emphasizes the diagnostic and the prognostic values of patients' art production.

This is a well written, well illustrated and readable book, which should be enjoyable reading to those who are interested in art therapy in particular and psychotic art production in general, provided they read French.

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Washington 20, D. C.

LEHRBUCH DER PSYCHIATRIE. Edited by *Hans Hoff*, (Basel/Stuttgart: Benno Schwabe & Co., 1956.)

The *Lehrbuch der Psychiatrie*, written by Professor Hans Hoff in collaboration with Professors Benedetti, Brun, Gschwind, Krayenbühl, Meng, and Stoll, is written in the old European tradition of the classical textbook as first created in the 19th century and now gradually disappearing. Although the tremendous task of covering a whole field like modern psychiatry has been divided among a few people, Professor Hoff has written the first volume of 533 pages covering psychiatry from its historical aspects to shock-therapy in 19 lectures. The great variety of subjects is indicated by the headings: Constitution and Heredity (Lecture 3); Depth Psychology (Lecture 4); Methods of Testing (Lecture 5); Electroencephalography (Lecture 10); Schizophrenia (Lectures 16 and 17).

Hans Hoff, who was in America during the war years and returned to Vienna after the war to take over the Chair of Psychiatry, has certainly a vast scope in covering such varied fields. Every chapter is well presented, clear and representative of standards and knowledge in modern psychiatry.

The first volume also has 32 tables which cover such varied aspects as the Body Types of Kretschmer, the Biaesch Test, some tables of the Rorschach Test, tables from the Thematic Apperception Test, and some neuropathological conditions.

In the second volume, Lectures 20-27 have also been written by Professor Hoff and cover such fields as child psychiatry, industrial poisonings, with 3 lectures on neuroses and 2 on psychopathy and perversions.

Among the collaborators, Professor Heinrich Meng presents the field of psychohygiene in two lectures. He is one of the European pioneers in this area. Although this field is less generally accepted in Europe than the mental hygiene movement in America, Heinrich Meng—who comes from Freud's psychoanalysis—combines great knowledge, experience, and the wisdom of an old master. He also presents in Lecture 31 the therapy of neuroses and especially the depth-psychological approach.

Professor Rudolf Brun, well known through his own textbook, has prepared the 30th lecture on the Therapy of Neuroses, including methods of suggestion.

Gaetano Benedetti, a pupil of Rosen in New York, deals with the Psychotherapy of Psychoses in Lecture 32. In contrast to his rather disappointing performance at the International Congress in Zurich, his lecture is well prepared and sensible.

Hugo Krayenbühl and Werner A. Stoll deal with Psychosurgery in Lectures 33 and 34, and Martin Gschwind presents two very useful chapters on the Legal Aspects of Mental Illness in which the European countries are very adequately covered (Lectures 35 and 36.) There is even an appendix with the important laws.

In general, the two volumes represent a remarkable achievement and the wealth of knowledge is outstanding. If one wants to express a criticism, one can only point to the way in which teaching is still carried out in most European countries where spectacular lectures are delivered to a large audience. Naturally, the listener is impressed—not only by the skill of presentation but by the authority with which present-day knowledge is conveyed to the student. Thus, the student is never aware of the scientific matters in flux or even matters of argument but is faced with a body of knowledge which is presented to him as if it were the last word in science, on which to express any doubt would be almost heresy. Moreover, this method of presentation is always highly unfair from an historical point of view because the lecturer mentions a few great names of the past, more or less familiar to anybody, while the actual contributions that have led to the present-day knowledge are neglected. Therefore, the bibliography is also by nature very incomplete and somewhat arbitrary. This reviewer wonders whether a new presentation of scientific thinking should not develop in modern times—a presentation in which the student is more cognizant of the questions and unsolved problems as well as the basic facts that form the traditional body of any branch of science.

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IN MEMORIAM

MANFRED SAKEL, M. D., 1900-1957

Manfred Sakel, the discoverer of the hypoglycemic insulin treatment of schizophrenia died suddenly of a heart attack on December 2, 1957.

Manfred Joshua Sakel was born into the Jewish community of Nadworna, Poland, then part of the Austro-Hungarian Empire, in 1900. He attended the First State College of Brno, Czechoslovakia, to 1920 and studied medicine in Vienna to 1925. He was Research Fellow in 1927 in the Urban Hospital in Berlin and soon afterwards became chief physician in the Lichterfelde Hospital in Berlin, 1927-1933. This was a private psychiatric hospital where abstinence cures for morphinism were frequently administered. Struck by the resemblance between the stormy withdrawal symptoms and hyperthyroidism, Sakel began to use insulin as a thyroid antagonist in the abstinence cures, finding to his surprise that hypoglycemic insulin shock was especially helpful to his patients. After some crude animal experimentation in his own kitchen, he was convinced that insulin shock was not the dangerous calamity it was supposed to be and could be a valuable tool in the treatment of excitement. He proceeded to employ it systematically in the management of other types of psychotic excitement including schizophrenia with good results. Though he courted great risks with this bold experimentation, with typical confidence in his own observations he felt he was on the road to great discoveries, and returned to Vienna to work as a volunteer assistant on the university psychiatric service to develop his work and to interest Professor Poetzl. The tactic succeeded and Poetzl, though schooled in the thoroughly skeptical tradition of Central European psychiatry, became convinced that the treatment was effective and sponsored Sakel's work throughout the stormy period of claims and counter-claims and sharp attack that followed. "The first treated cases that I saw," wrote Poetzl, "convinced me that this method of treatment outclassed any other presently available." Adherents of scientific distinction such as Mueller in Switzerland, Cameron in America, Frostig in Poland, and Benedek in Hungary, soon recognized the therapeutic value of the new treatment and during the following years a wave of enthusiastic interest spread over the world.

Sakel was invited to this country to treat a patient and through the good offices of Drs. A. A. Brill and Frederick Parsons, then New York State Commissioner of Mental Hygiene, training programs were set up in the state hospital system under his direction. For a while he was much in demand as a speaker and traveled a great deal, but within a matter of years was drawn more and more into private practice. An almost fatal heart attack in 1946 forced him to limit his activities and he lost contact with scientific centers and organizations in this country thereafter.

Sakel, who felt the whip of antisemitism in Central Europe, had a proud consciousness of his status as a Jew and as a member of an oppressed minority. As part of his private practice he maintained a large free practice and gave lavishly to charitable enterprises of all religious denominations, with special interest in the work of the Quakers. He lived simply, and in recent years seriously planned to build a hospital of his own. He was honored by a degree from Colgate University in 1936, and refused a professorship in a western state soon afterwards—a decision he sometimes regretted for he found little academic recognition or acceptance thereafter and limited his work almost entirely to private practice. Never a great reader, his scientific utterances were sometimes surprisingly naive, and were marred by personal recriminations. It was a misfortune that he enjoyed a better scientific reputation abroad than in the country of his adoption.

In spite of some unacceptable speculations that accompanied Sakel's clinical ob-

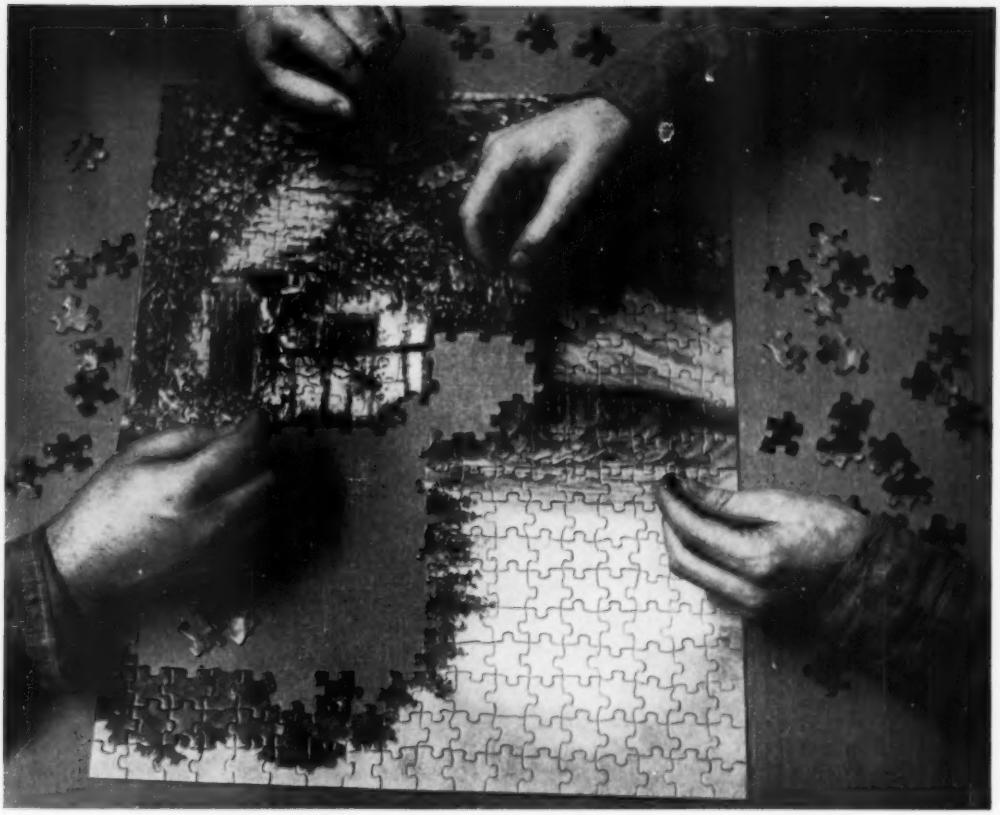
servations and discoveries, these often revealed remarkable insight and he was gifted with excellent powers of observation. The courage and tenacious persistence with which he held to his main contentions have been vindicated by time. Though he tended to regard schizophrenia as a syndrome rather than a specific disease entity, he felt that such a symptom-complex could yield to systematic treatment methods. "Psychologic factors," he declared, "are not likely to be the only ones involved in a mental dislocation as serious as that found in schizophrenia." In a statement made soon after his arrival in the U. S. A., addressed in part to his many detractors, he said,

I have a high regard for strict scientific procedure and would be glad if we could follow the accustomed path in solving this special problem: it would have been preferable to have been able to trace the cause of the disease first, and then to follow the path by looking for a suitable treatment. But since it has so happened that we by chance hit upon the wrong end of the right path, shall we undertake to leave it before better alternatives present themselves? For even if the hypoglycemic treatment of psychoses accomplishes only a part of what it promises, it nevertheless has a value beyond its therapeutic claims, for it should perhaps now enable us to work backwards from it to the nature and cause of schizophrenia itself.

I am aware that this may prove to be a large and more difficult undertaking, but I believe it can be said that it is well worth the effort, even though my own theoretical premises, on which the treatment has been based, should finally prove to be wrong. The mistakes in theory should not be counted against the treatment itself, which seems to be accomplishing more than the theory behind it.

Manfred Sakel must be regarded as the innovator not only of the first successful treatment of schizophrenia, but as one of the first and strongest supporters of a physiological concept of schizophrenia and of physiological treatment in psychiatry. His historical position is secure and will remain after all the lesser distracting considerations have receded.

JOSEPH WORTIS, M. D.



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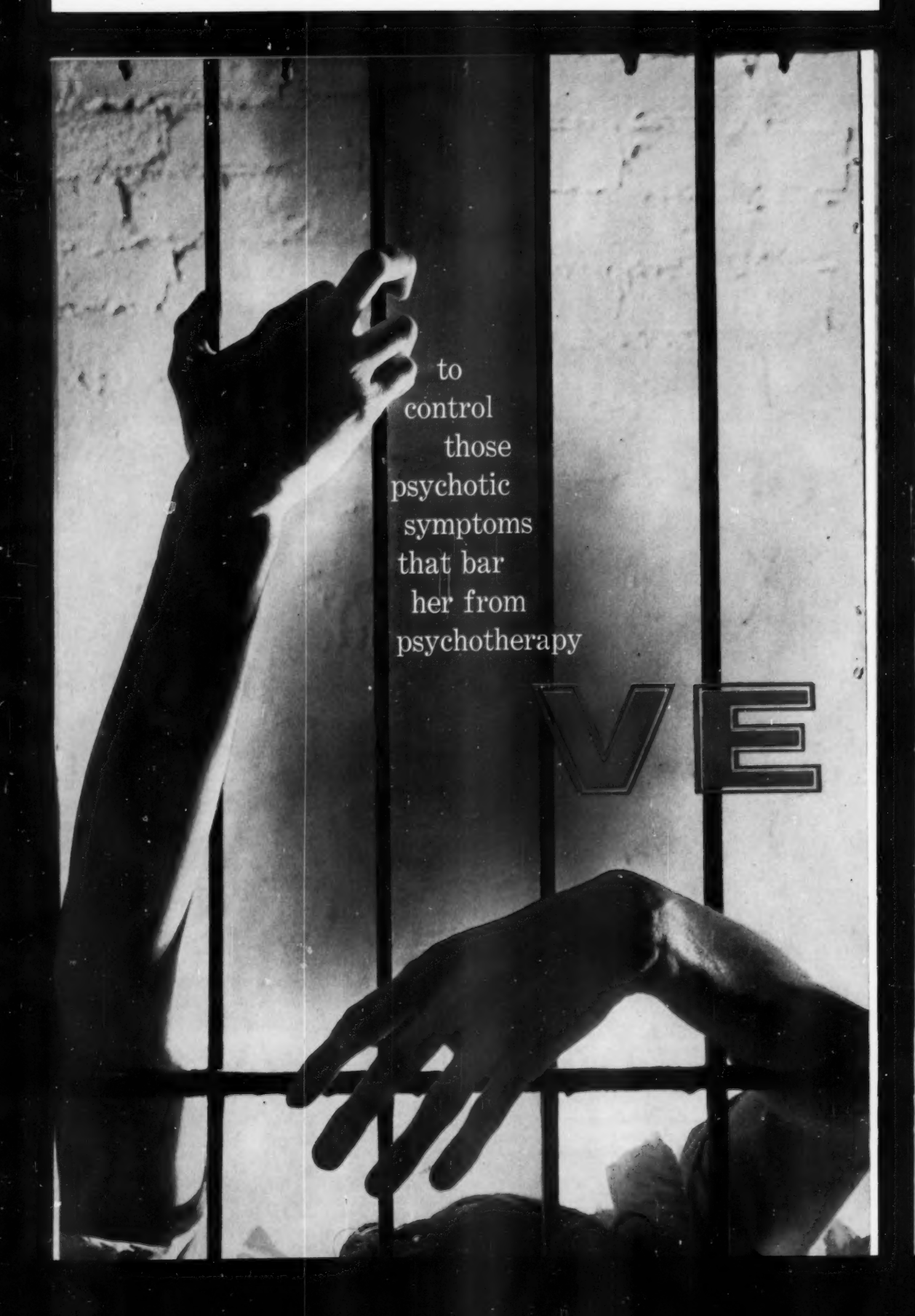
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